Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

SHOUT
SHARE
IT

U.S. - Agri., Dept. of -

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

January 10, 1918.

Forestry after the War

What effect will the war have upon forestry?

As everyone knows, the forests are playing a strikingly prominent part in the prosecution of the war. In this age of coal and iron, wood is being sought more eagerly and used more extensively than ever before. In the trenches, on the road, in the air, in the shipyard, in the munition factory and chemical laboratory, in the building of cantonments, and in the fireplace at home, wood has become a dominant factor.

In countries with limited forest areas, such as England, France, and even in neutral countries like Switzerland, Sweden and Norway, the war-time demand for wood has made deep inroads into timber resources. It has also disorganized, if not depleted, the forests of the Central powers.

This demand for wood is not going to decline with the termination of the war. The reconstruction of the devastated portions of France and Belgium, the rebuilding of the peace industries, will call for vast quantities. The United States, Canada, and Russia, still possessing vast forests, will have to meet this world's shortage in timber.

What deductions suggest themselves as a result of these outstanding facts?

The long-delayed plans for extensive reforestation in England will now become a reality.

France and Belgium will feverishly begin the upbuilding of their depleted or disorganized forests.

The heavy cuttings in Norway, Sweden and Switzerland, induced by the high prices paid for timber by the belligerent nations, will be restricted and the remaining diminished supplies will be husbanded with greater care. Switzerland, fearing the depletion of its privately-owned forests, has already placed stringent regulations for the cutting of timber during the war. These restrictions will unquestionably become permanent.

It is only reasonable to expect that a similar policy will be adopted with regard to the forests of our own country. A resource which promises to prove a decisive one in winning the war will never again be allowed to be destroyed or devastated. Our army and navy, which more than any other branches of our Government have come to realize the value of forest products, will probably be among the first to place the timber lands in their control under forest management. The tendency in this direction is shown in the case of the recently-acquired Gunpowder Neck Proving Ground, a forest tract of about 35,000 acres, which it is planned to put in charge of a forester and manage as a permanent resource.

Farm forestry will be put on the map. The value of the farmer's woodlot as a source of emergency fuel and of a supply of ordnance wheels, airplane propellers, and other war material, will forcibly drive home to Government and State agencies concerned with the welfare of the farmer the importance of the woodlot as a national asset. The county agents who are now taking an active part in

the wood fuel campaign throughout the country will, after the war, become the most effective agencies in the improvement of the farmer's woodlot.

The value of the forests will stimulate interest in planting on the part of the State and private individuals.

If, with the diminished world supply of timber and higher prices for lumber, private timber owners are still unable to safeguard this national asset from further destruction, enlightened public opinion may demand some form or other of Government regulation of timber cuttings on private holdings. The lumbermen themselves, in the face of the lessons taught by the war, will be more friendly to such Government regulation; and the Government, having learned how to handle big enterprises, such as the equipment of a large citizen's army, running of railroads, control of food production and other national necessities, will be better prepared to undertake such regulation.

With the regulation of private timber holdings there must come also more intensive forest management in the National Forests themselves, which are merely a part of the timber resources of the country.

Other factors which augur well for the better handling of our forests in the future are the forest regiments now in France. In the foresters and lumbermen who have worked shoulder to shoulder and have learned first-hand the French methods of forest regulation, the country will have a body of men particularly fitted to adapt the utilization of our forests to the changed needs of the time.

Thus, on the battle fields of Europe is being fought out not only the future democracy of the world, but also the material foundation of all democracies--the wise use of the natural resources.

RAPHAEL ZON.

The Knitting Situation

The number of people knitting for the Forest Regiments grows steadily, but so does the need. The Tenth Engineers is being augmented by additional recruits who will be sent across from time to time. Three battalions of men for road construction have been added to the ten battalions originally planned for the Twentieth, which will be the biggest regiment in the world.

The job of supplying one sweater for each man was sized up a few days ago as calling for 500 sweaters a week for the next ten weeks, but this did not take into account the road battalions, of 1,000 men each.

There was a great disappointment for us when the 3rd and 4th battalions left. Arrangements had been made to send with them a large box of sweaters and socks for the men of the 10th, who left this country before sweaters began to be supplied. The Districts had been wired to ship in all sweaters on hand, so they could go in this box. At the last moment, with the box all packed and ready to be sent, the departure of the troops was so hurried that our gift had to be left behind.

Under the leadership of Miss Mira L. Dock of Pennsylvania, Vice-Chairman of the Conservation Department of the General Federation of Women's Clubs, work on behalf of the Forest Regiments has been for some time under way in that organization.

The weather in Washington became severely cold near the end of December, and temperatures much below normal have been the rule. To outfit the men in camp 1,100 sweaters were obtained from the Red Cross. The Forest Service has this week furnished 268 sweaters, including 65 machine-made ones generously presented by

the Ogden District Office, and 66 pairs of wristlets. By the middle of next week it is expected that some 200 sweaters more will be ready. About half of these have been knit by workers enlisted by the Department of Agriculture organization.

Agricultural Committee Favorable to Service War Activities

Mr. Potter reports that at the hearings on the Forest Service appropriation bill before the Agricultural Committee of the House, the members of the Committee appeared to be greatly interested in the various war activities of the Service, particularly the raising of the 10th Engineers and the work being carried on at the Madison Laboratory. The Committee, Mr. Potter says, seemed to appreciate the importance of the work the Service has done and is doing, and to approve it heartily. None of the new items in the appropriation bill, in fact, met with adverse question from any member of the Committee.

Saginaw and Manistee Timber Sale Closed

The Saginaw and Manistee Lumber Company has executed a contract for the purchase of the remaining timber on the Kendrick Park and Kendrick Mountain units within the Tusayan and Coconino National Forests, thus concluding negotiations begun in 1915. The Company has previously purchased in small sales some timber within these units, but delayed taking all, on the ground that they could not do so until Congress passed the bill extending the time within which their timber rights could be exercised on a large number of odd-numbered sections within the same Forest. The Department of Agriculture has reported favorably upon this bill and there is good prospect that it will pass. Meanwhile, the new sale involving some 40,000,000 feet, will enable the Company to operate with logical extensions of its present railroad system. The sale is very desirable from the viewpoint of the Forest Service.

Washington Office Notes

Smith Riley, sometime of Denver, is in Washington for a six-weeks stay. Mr. Riley's job while here will be to revise the public edition of the Use Book.

C. H. Teesdale and H. E. Surface, of the Laboratory, are also visitors. Mr. Teesdale is here in connection with the work of obtaining a supply of glue for laminated wood used in airplanes. Mr. Surface has come to attend some of the Federal Trade Commission hearings in connection with the investigation of the paper industry.

Former members of the Service who have recently paid us a visit include McGarvey Cline and H. K. Holroyd. The interests which Mr. Cline represents have some water front property in Florida which they are willing to turn over to the Shipping Board, and his presence in Washington had to do with that. Mr. Holroyd, who is connected with the industrial department of the Louisville and Nashville Railway, was in town on railroad business.

Owners of Washington real estate are not closing their eyes to the opportunity offered by the crowded condition of the city for raising rents. Some, however, are more ambitious in this direction than others. For example, the owners of the Atlantic Building have served notice that at the expiration of the present lease next June, the yearly rent will be raised from $18,500, the present figure, to $34,000! No action has yet been taken in the matter, but it is safe to say that much earnest thought will be given to it.

Supervisor Vernon Metcalf, who has been in Washington assisting in the marking of ranger examination papers, left for his Forest on January 9. Some 470 men took the examination.

The bad weather this winter is probably responsible for the unusual amount of sickness among members of the Washington office. The latest victim is Earle H. Clapp, who is down with the mumps.

Will C. Barnes is on his way to Salt Lake to attend the meetings of the American Livestock Association and the American Wool Growers' Association, beginning January 14.

News of the Madison Laboratory

Fifty species of South American woods are now undergoing tests at the laboratory. They constitute probably the first large group of tropical woods to be tested in this country for commercial purposes.

The question of primary interest in the present investigation is the war value of each of the woods, but the data gathered may point to the advisability of permanently correlating these species with the commercial timbers of the United States. Many of them exist in enormous quantities, and can be cheaply exported; and with a knowledge of their characteristics it should be possible for us to use them to replace some of our scarcer native woods.

Through the installation of a hydraulic press in the section of preservation, the laboratory is enabled to manufacture its own veneer panels for testing purposes. This new equipment will greatly facilitate the study of veneer airplane parts and of waterproof glues.

Acquisition

Malcolm G. Slarrow, a former transitman in the Office of Surveys, Branch of Acquisition, is now a lieutenant, senior grade, in the navy. Mr. Slarrow qualified for a commission in the navy shortly before our entry into the war and since assuming his duties has received rapid promotion which testifies to the high quality of his services.

Examiner of Surveys Muzzey and Transitman Pidgeon have been temporarily detailed to the Washington office to prepare in final form the field notes resulting from the surveys which have been made in the White Mountains by Mr. Muzzey this past season. The last job to which Mr.Muzzey was assigned was nearly completed when the severe weather set in. Rather than discontinue the work because of the adverse conditions, however, he and his party stuck to the job, working in snow with the thermometer registering as low as 20° below zero during the last week or ten days until the work was successfully completed.

Examiner of Surveys J. W. Fox, who has been temporarily detailed to the Washington office, will shortly proceed to Asheville to prepare grant records incident to the survey of a large body of land in North Carolina, which will be undertaken as soon as weather conditions permit.

National Forest Examiner Wood, of this office, will soon go to Harrisonburg, Virginia, to undertake the preparation in final form of the Massanutten and Potomac grant maps. He will also be engaged in the filing and indexing of the grants which affect these Areas.

The following extracts are taken from letters received from Capt. R. C. Hall:

* * * * * * * * * * * *

I have been attached to headquarters, Lines of Communication, under Col. Graves and Major Greeley, and have been engaged chiefly in looking up and making operating reports on forests in various parts of France. The logging engineers have handled the most difficult propositions, but all of us are doing some tall guessing, and I can guess (or reckon, either) with the best of them. I expect soon to be transferred to the A. E. F. to work with three others with Major Peck in the War Zone, a territory right back of the front under military control. The chief job there is to go out and buy, beg, steal or requisition cordwood.

* * * * * * * * * * * *

I had the good fortune to see the 10th before they split up, as I had to conduct one of the officers to a forest I had examined. They seem to be a fine body of men.

Sometimes I think the French are a wonderful people, other times I can't see how they have managed to resist the methodical Germans at all. They are extraordinary in the way they save and make use of material resources, but very wasteful on the whole of human effort. Of course, their practical geniuses must be largely at work near the front, and before the war evidently labor did not count for much. They are practically all excellent cooks, and there seems to be plenty of meat of good quality for all except perhaps the extremely poor. In this respect, however, conditions may be worse in the later years of the war.

So far, our long fight with the Boche subs the last day of the trip across is the only active warfare I have seen. Have had occasion to see some practice work with hand grenades, etc., from model trenches at a French training school. On my next work, however, I should at least see some air-fighting, but don't suppose I will get in range of shells and gas.

I am getting along fairly well with the language, although I can not follow an ordinary rapid-fire French conversation. When they slow down a little I can get about everything now, and can express my own ideas with much bad grammar. Can now order baked apples without being afraid they will bring me fried potatoes. I manage fairly well on the French "petit dejeuner," usually taking chocolate which is nearly always good, but wouldn't want to do much mountain climbing without something more. The other meals are very hearty. I am falling in with most French customs, but draw the line at breakfast in my bedroom when there is any other decent place. I also occasionally insist on a glass of plain water, much to the astonishment of all present. Have never seen a Frenchman drink water except in mixture.

* * * * * * * * * * * *

Please take pity on me and let me have some Service news. Haven't heard from any one for a long time. Am now chasing around in the Army Zone with auto and chauffeur provided--wouldn't be such a bad job but for the cold and difficulty of getting meals in the small towns just back of the front. Got pretty close on my last trip--could hear cannonading all the time and saw much airplane activity. The boche dropped a few bombs the other night on a town near where I was staying. I went by there the next day and saw the damages--several houses smashed to splinters and a big hole back of a cafe. Met a medical officer hunting a new billet--luckily he had been out of his room when it got smashed up.

* * * * * * * * * * * * *

District 1

The value of forest cover in regulating streamflow and the effect of forest fires on streamflow was forcibly brought to our attention last week when Big Creek of the St. Joe River, within a period of twenty-four hours, rose to a high-water mark, higher than the floods in the spring of 1917, which was the highest of record.

This drainage was all burned in 1910. The recent heavy rains culminated in the flood of December 18, which took out all the improvements, bridges, camps, dams and wing dams on Big Creek and flooded the flats at Herrick to a depth of 3 feet, doing several thousand dollars' damage to the cedar operations of Joseph Marsden on Big Creek. While the streams draining other and timbered areas were unusually high, they did not reach the high-water mark of the spring of 1917. Whereas all the snow on Big Creek drain age was taken off by the recent rains, there remained from 2 to 3 feet of snow in the timbered drainages.

District 2

A meeting of the South Park Sheepmen, held at Hartsel on Saturday, January 5, was attended by all of the sheepmen of the Park and the Forest Officers of the Pike and Leadville Forests immediately concerned, and by Mr. Hatton of the District Office.

A special unit including portions of the Pike and Leadville sheep ranges has been set aside for the exclusive use of the South Park applicants, and a plan is being worked up which will make for the best economic use of that area and all Forest ranges dependent upon it.

A local stock association known as the South Park Wool Growers' Association was perfected at the meeting, which will cooperate with the Forest officers in the best management of this particular area.

The Wyoming Wool Growers' Association will hold its meeting at Douglas, Wyoming, January 9-11. Mr. Hatton will attend and address the Association on the subject of "National Forest Grazing and the War."

The Colorado Stock Growers' Association will meet at the Albany Hotel, January 22, and has made a special request for an address on Game in Relation to the National Forests. This subject will be presented by Mr. Hatton.

Mr. Douglas attended the meeting at Carbondale of the Roaring Fork Stock Growers' Association on January 5 and will take up special matters on the Battlement and Cochetopa before his return.

We have had one of the most favorable falls and winter so far for livestock known for some time. A great many cattle and sheep have been using the pastures and open ranges, and scarcely any feeding of hay has been done so far, in fact, a number are taking advantage of the weather conditions to dispose of some of their hay. Prices are very high, ranging from $23.50 for alfalfa to $28 and $30 for best South Park hay, f.o.b. Denver.

District 3

In a letter from Ranger J. H. Billingslea, Jr., of the Apache, now Sergeant in Company "C", 10th Engineers, the statement is made that "the general feeling over here among all the allied soldiers is that the war will end next summer." Mr. Billingslea's guess, as well as that of all the allied soldiers, is as good as anybody's.

A Christmas card received from Captain John D. Guthrie, now in France with the 10th, states that all the District 3 men with him are well.

"November 26 was the first anniversary of the Baseline wireless installation. The sets at Baseline and Clifton have proven their efficiency by giving continuous service for almost the total period, having been out of commission for less than one month and that on account of exhausted batteries."

District 5

The women employees of the District Office have recently forwarded to Washington 16 sweaters, 13 pairs of wristlets, and 1 scarf. It is expected that a great many more knitted articles will be sent in the near future.

The sale, to the Sierra Sugar Pine Company, on the Sierra, and the M. A. Burns sale on the Shasta, have been cancelled by the Forester. Both sales were made about 1912, and both were cancelled because of the failure of the buyers to furnish new bonds after the expiration of their first bonds. The Sierra Sugar Pine sale was for 800 million feet and was the largest sale ever made by the Forest Service. Operations were never begun by the Company. The M. A. Burns sale was for 182 million feet, 10 million feet of which has been cut. This Company ceased operating in 1916.

The District Forester has complained to the Quartermaster's Department at Fort Mason of the disturbance by a contractor repairing the wharf of pile sections placed there by the Forest Service for experimental purposes. This piling consists of about 25 sections, some of which were treated with creosote, and other compounds. This experiment has been carried on by the Forest Service to ascertain the relative resistance of the different woods and treatments to the attack of marine borers.

A carload of redwood, got out by the Office of Products in cooperation with the California Redwood Association, will be sent to the Madison Laboratory for strength tests. A carload of red fir is also being gotten out by the Red River Lumber Company for test by the Laboratory as to its suitability for airplane construction.

It has been decided to hold a monthly meeting to which all members of the District Office will be invited--attendance to be voluntary. Usually at these meetings one or more talks will be made by members of the office to be designated by the District Forester; at times, however, it may be possible to arrange for talks by outside people who are engaged in work of particular interest to us. Subjects of talks by office members will be selected by the District Forester, who desires to consider suggestion topics from any member of the organization.

District 6

On his recent inspection trip, G. G. Anderson, of the Washington Office, discovered a file designation used by a ranger that will undoubtedly appeal to more than one Forest officer who is puzzled as to what to do with some of the correspondence he receives. The guide card in front of a fat section of the ranger's files bore the succinct designation: "Dope we don't savvy." (Six-Twenty-Six)

District 7

The construction of wooden ships has caused such a heavy demand for locust treenails that the price has jumped to several times the normal figure. It has been difficult to work out a proper stumpage charge for this class of material which is ordinarily sold by the cord. By taking the average of a large number of private sales, a charge varying from $5 to $15 a cord, according to the accessibility and other determining factors, seems to be justified.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

January 17, 1918.

A Bad Setback for the Knitting Work

The knitting program got a severe jolt this week. Just as the prospect seemed bright for an output of sweaters approaching the needs of the Twentieth Engineers our chief source of funds for buying wool failed. Until the situation changes no more free wool can be sent out from the Washington office.

Expansion of the knitting work was made possible by the generous support received from the Lumber and Forest Regiments Relief Committee, which between November 30 and January 3 contributed $2,100 to the wool fund. To bring together all of those who have started movements and subscriptions on behalf of the regiments, the Committee has recently been reorganized. The result has been to create a body which includes representatives of the Order of Hoo-Hoo, the lumber trade press, the National Lumber Manufacturers' Association, the wholesale and retail lumber dealers' associations, the Timberland Owners' Association, the American Forestry Association, and the Forest Service, under the name of the "Relief Fund for Lumbermen and Foresters in War Service."

It was believed that this committee would recognize the provision of knitted articles as the most important immediate thing to be done and would continue to give money for this purpose; but at its first meeting, held in New York January 12, it did not get beyond the organization stage. Until it meets again its attitude will not be determined.

A limited amount of wool, but by no means enough to keep busy those now knitting in Washington, will be available through purchases which will be made from the Department of Agriculture fund for Red Cross and other war work. Members of the Washington office contribute to this fund each pay day. Shipments of wool to the Districts and to the Laboratory at Madison can no longer be made except as each may be able to pay for the wool which it orders.

It is hoped that the Red Cross will be able to supply the sweaters needed by the Twentieth, in excess of what the Forest Service and the Conservation Department of the Federation of Women's Clubs may be able to provide.

The total number of sweaters furnished to date, including those sent the Tenth Engineers, has been over 800, of which about 125 came from the Department and 150 from the Districts.

Sock knitting machines have been purchased by the Washington office and the District 1 office, but neither has been received. The machines cost $20.75 each. It is understood that with them socks can be knit rapidly and that the operation of the machines can be learned without much difficulty. As the need for sweaters becomes less urgent sock-making will probably come to the fore.

HERBERT A. SMITH.

Secretary Approves Service Flags

The Secretary approves the display of service flags at Forest Service headquarters. It is proper, the Secretary thinks, to have each flag show the number of men on military service from the particular division which each headquarters represents. This permits a service flag at a District office to show the number of men in military service from that District, and a flag at a Supervisor's office the number of men from that particular Forest. A subscription is being taken up in the Washington office for a flag for the whole Service.

More Men Needed for the 20th Engineers

The 20th Engineers continues to grow. The War Department has called upon the Forest Service to recruit 6,000 additional men for the regiment. Of these 3,000 should be loggers, sawmill men, and logging road men, and 3,000 road builders. In each case the figures include the necessary number of laborers for the various lines of work.

California Drought Relieved

A letter and telegram received from District 5 the same day described an alarming outlook and furnished a happy ending, respectively, for the drought situation in California. At the time the letter was written no rain whatever had fallen in southern California, and very little over the rest of the State. Losses of stock were already severe and promised to become sweeping. A few bits of feed had been opened up on the Santa Barbara Forest, but beyond this the Service was powerless to help. The telegram, however, which was sent five days after the letter, reported that, beginning the day after the letter had been mailed, a general rain had fallen throughout the State.

Washington Office Notes

Mrs. N. W. Brenizer is soon to take charge of the coloring and distribution of lantern slides at the national headquarters of the Red Cross. Mrs. Brenizer's work there will be closely connected with the nation-wide campaign which the Red Cross plans to conduct for familiarizing the American people with its aims and methods of work.

John Kerr, District 3, is in Washington for a six weeks detail. Mr. Kerr comes to help out with the grazing work and to get a line on how matters are handled at this end.

The order of the Fuel Administration closing stores and offices for 10 Mondays beginning January 21, as a coal saving measure, does not affect the Forest Service. Government offices are exempted under the order, and no member of the Service will be prevented from doing his or her usual amount of work on the second day of the week.

War Farming Planting Has Unusual Result

That the war farming propaganda of last spring met with a response from the farmers of at least one State, which tied up in a novel way with the Weeks Law work, is shown by the report of the State Forester of Kentucky on fire cooperation for 1917. According to the report, there was an unprecedented number of fires in Kentucky last spring caused by farmers burning brush while clearing land for cultivation. Over half the forest fires reported in the State last year, the State Forester says, were from this cause alone.

THE LUMBERJACK'S WAR SONG

From Lumberjack Ballads by Douglass Malloch

If it's men for your ships, if it's men for your shore,
  If it's men for your guns on the borders,
If it's guards for your firesides, or fighters for war,
  We are ready and waiting your orders.
We will lay down the axe, we will hang up the saw,
  We will come from the rafts on the river;
And we'll fight for the land, we'll fight for the law
  And the Star Spangled Banner forever!

If it's men for the sea, we have river rats here,
  Who are kings of the drive and the water;
If it's men for the line, we have swampers to cheer
  All the louder when matters get hotter,
If it's over the sea you would have us to go,
  There to conquer the foe our endeavor,
We are ready - and only one ditty we know;
  That's the Star Spangled Banner forever!

We have handled a saw, we can handle a gun;
  We have made us a trail through the timber,
And we'll swamp you a road to a place in the sun,
  For our arms and our axes are limber.
The man in the town is a fancier guy,
  The man in the town may be clever;
But we're ready to fight and we're ready to die
  For the Star Spangled Banner forever.

District 1

During the last week in December a very peculiar weather condition caused the creeks on the Kootenai Forest which head in the Cabinet Range as far north as Fisher River to rise higher than has ever been known before. A strong chinook melted nearly all of the snow in the higher mountains, while that in the valley was not affected. At the same time the worst sleet storm ever known in the valley occurred.

A careful check made on the Gallatin showed that not over 125 elk were killed in the Upper Gallatin region. Approximately one hundred of these were killed on December 14 and 15, the last two days of the hunting season. This is another good example why the hunting season should close on November 30.

During the last summer Ranger James C. Friend, whose district is north of the Yellowstone Park, killed ten bear and caught two cubs alive. The bear had been unusually active in raids on sheep and had killed about 400 in that district. Several of the herders were badly scared and one was treed for a considerable time. About the middle of the summer, Ranger Friend returned to one of his headquarters cabins after an absence of several days and found that it had been pretty badly wrecked by bears, which had gained entrance through one of the windows. Everything in the cabin was torn up and pawed over; even the cooking stove had received its share of abuse. Shortly after this time, five bears, three of which were silvertips, paid a return call to the cabin and were given a warm reception by the ranger. The hides of three of them were, on last accounts, drying on the barn.

District 2

Mr. Hatton gave a talk on "National Forest Grazing and the War," before the annual meeting of the Wyoming Wool-growers' Association, at Douglas, Wyoming, early in January. Two hundred and fifty sheepmen were in attendance. A resolution was passed petitioning Congress to place a federal tax on all dogs with a view to raising funds for the extermination of predatory animals, including sheep-killing dogs. It is estimated that there are ten million dogs in the United States, half of which would probably be killed off to avoid the tax. On the remainder it is thought a revenue of $5,000,000 could be raised.

A resolution was adopted by the Gunnison County Stockgrowers' Association on December 29, asking Congress to grant to each National Forest 20 per cent of its grazing fees, to be used for the eradication of poisonous plants and for other range improvements and to remain available until spent.

Receipts from the National Forests in District 2 during the six months ending December 31, were $140,337, an increase of 37 per cent over the corresponding period last year. Grazing receipts showed an increase of 70 per cent, timber sales 40 per cent, and special uses 17 per cent.

Through the re-districting of the western field work of the Office of Public Roads, effective January 1, supervision of the Southwestern District (Forest Service District 3) has been transferred to the Denver Office of Public Roads; of the Inter-mountain District (D.4) to the San Francisco office; and of the Inland Empire District (D.1) to the Portland office.

Mr. J. W. Cook, of the District office, will leave January 15 for Madison, Wisconsin, where he will assist the auditing department of the Forest Products Laboratory for six or eight weeks.

As a Christmas gift to Mrs. Oscar E. Lorenz, whose husband, a Forest Ranger on the Pike, died last fall, leaving her and two children without adequate means of support, Forest officers in District 2 contributed $225.50. The purse was made up of a large number of small contributions.

Supervisor Hilton of the Michigan Forest has arrived in the District office to carry through an analysis of the quantitative and qualitative rangers' plans in the District for the past six months. It is expected that some interesting comparative data will be made up for the District as a whole that will be of value for making estimates for next year.

If the Forest clerk situation gets any more critical, and there is every evidence that it will, some Supervisors will have to limber up their fingers and go back to the days of twelve or fifteen years ago when they had no clerks and when it was necessary for them to do their own office work.

District 3

Assistant District Forester Don Johnston has been detailed for a short period in the Washington Office, but expects to return to Albuquerque about the middle of this month.

Liberty Loan subscriptions for the first and second loans, totaling $21,750, were taken by members of the Forest Service in this District. Of this amount, $13,100 was subscribed by the field force and $8,650 by the District Office force.

The District Office knitting committee has sent a shipment of 10 sweaters and 5 pairs of wristlets to Washington.

Our annual fire report shows that, during the calendar year 1917, 815 fires were reported in this District.

A total area of 46,627 acres was burned over with damage to timber, reproduction and forage amounting to $8,436. $19,100 was spent for fighting fires, and cooperation to the value of $7,022 was rendered without charge to the Forest Service.

Mr. D. F. Seerey has received the following letter from Herman Work, formerly deputy Forest supervisor on the Caribou Forest, and now with the Tenth Engineers in France.

"Dear Mr. Seerey:

"Did you know your name sounds exactly like the French word for sawmill--cirri? Well, it's true. I wish you could see our layout. It's the best camp I ever saw. After the war I hope to be able to describe it to you, with diagrams, but of course that would never do now--some friendly Boche might intercept the letter. The timber is better than anything I know of in District 4 from a logging standpoint. I doubt if the darkness of these forests has been bettered very much anywhere. Big trees and very dense stands--walk a hundred yards into the woods and you are in all over without much chance of seeing out, for they have planted younger shrubs all along the edges.

"My particular job is putting out the raw material and it would be a lot too much for me if I didn't have a fine lot of men with all kinds of experience and who know the game. As it is, we are putting out the stuff. Dunbar, by the way, is making very good as a sergeant, handling the general office business and discipline. Miller Benedict is summary court officer for Company D and I have the same job for Company F.

"Wish you could drop in to look us over. You would enjoy showing us how to save time and effort and we would give you plenty of bully beef and beans, together with about everything else needed. Great lot of officers and men in this outfit."

District 5

According to a letter received from Captain E. W. Kelley, Company F, Tenth Engineers, his Company has the honor of manufacturing the first board made by American troops in France. A section of the board is on its way to the San Francisco office to be preserved as a relic. (Why not use it for the Kaiser's coffin?)

The Forest Service is working in cooperation with the Food Administration to relieve the stockmen of southern California who are suffering from a shortage of stock feed. Forest Supervisors are listing stockmen and farmers in all parts of the State having stock feed for sale, or who are in the market to purchase stock, with the object of putting these men in touch with owners of starving stock in southern California.

At the present time six crews are engaged in fire trail construction on the Cleveland Forest. This work is being financed entirely by cooperative funds, with the exception of the salaries of the Rangers in charge. Other improvements planned this spring include a standard lookout building and several miles of telephone line. The work is part of a five-year plan to construct needed fire prevention improvements, and the cooperators in most cases have promised to continue their contributions from year to year until the work is completed. The cooperation secured indicates that the public has waked up to the effect of the Cleveland watershed cover on the regulation of streamflow and realizes the need of adequately protecting it from fire.

District 6

Twenty-two members of the District Office are devoting their entire time to the spruce inventory of the Northwest, which will soon be completed. Work is also being carried on at the headquarters of the Snoqualmie, Olympic, and Siuslaw Forests.

A wooden truss bridge 148 feet long, constructed by ranger labor, was recently completed on the North Fork of the John Day River, on the Whitman. The main span is 65 feet. The bridge replaces a privately owned toll bridge destroyed by high water last year, over which a toll of $5 per band was charged for sheep. The approximate cost of the new bridge is $445. About fifty thousand head of sheep will use it each season.

A cooperative agreement for the construction of the Canyonville-Galesville Road on the Umpqua has been approved by the Secretary. The total length of the road is 11-8/10 miles, of which about 8 miles is in the National Forest. The estimated cost for the location, survey, and construction is $157,000.

Forest Supervisor W. G. Weigle arrived from Alaska for a three-weeks' detail in the District Office. While here he will take up with the District officers and Col. Disque, of the Signal Corps, the possibility of using the spruce on the Tongass for airplane stock. Mr. Weigle reports that 53.85 inches of rain fell in southeastern Alaska during November. The total precipitation for 11 months ending November 30 was 179.16 inches.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

January 24, 1918.

Is the Weekly Bulletin Worth While?

It is time for a family talk about the Weekly Bulletin.

It has been going long enough for a good, fair try-out. We want to know what its readers think of it, and how it can be bettered - or, if it is not worth going on with, we want to discover the fact and hold the obsequies.

The views of the District Foresters have been sought, with varying results. Two District offices have replied that in its present form the Bulletin is not worth continuing. Three Districts hold that it is. The letters show that one reason for these differing judgments is a difference of ideas as to the purpose of the Bulletin.

The Weekly Bulletin is not issued with any idea of adapting it to the special needs of people in the District offices. On the contrary, one of its objects is to give the men on the Forests more of a chance to know about things of which the District offices are regularly informed, but the men in the field are not. The District offices receive the minutes of the Service Committee meetings in Washington, and also interchange much District news. Consequently the Weekly Bulletin is largely an old story to them. The Washington Office would like to know now, not what the people in the District offices think about the usefulness of the Bulletin, but what our Supervisors, Rangers, and others on the Forests think about it.

The Bulletin was inaugurated because it was believed we should do something to keep in better touch with those of our members who have taken up arms in our common cause. But as soon as the plan took shape it seemed to afford a chance to kill another bird with the same stone. It had long been felt that we do not do all that is needed to give our entire organization the right perspective and a full sense of partnership. The Washington Office must seem a long way off, to most men on the Forests. We shall all be pulling together more satisfactorily if even those most distant understand not only what we do, but why we do things. And when luck comes our way--when the Forest Service makes a new step ahead or wins a fresh victory in the steady fight to do our best for the public welfare--we want to feel that everybody knows about it and realizes what it means.

Undoubtedly the Bulletin is a long way from having found itself. It is not nearly as interesting as it should be. This is partly, its editors think, because we do not begin to get as much good material as the Forest Service ought to be able to furnish. Has everybody with something to say contributed? We guess not. Readers, if you feel like shooting, shoot ahead - with something good. We are not the only ones to blame.

We have had some interesting criticisms. Not just to show that we are willing to make public confession of our shortcomings, but as a stimulus to discussion and a general invitation to all to help us improve, some of them follow:

"The Bulletin could be bettered by a somewhat lighter style. * * The editorial matter seems to us to be rather too formal to have its maximum effectiveness."

News items could be made much more readable and valuable by being "humanized." (A true bill.)

The bulletin "might be used as a medium for an exchange of ideas and problems of common interest by the Supervisors and technical men on the Forests, such items to be solicited from the field men and submitted to the Washington office direct." (Good! Send 'em in.)

A Forest Assistant found that "while he had a passing interest in the Weekly Bulletin the nature of the material was such that it left no lasting impressions, consequently he could not think it worth the effort and expense."

"The present Bulletin is too long."

"If the Washington Bulletin could be held to news of general interest only, it would be fulfilling its proper function."

" * * * of slight value and not worth keeping up."

" * * * has lacked * * editorial force, virility, and attractiveness. A rehash of more or less dull, lifeless, routine items does not arouse enthusiasm or provoke more than a passing interest among the rank and file."

Next! Let the brickbats and bouquets come on until we are sure we see ourselves as others see us. In reproducing such kind words as may come our way we shall try to construe liberally the rule "Everything that's fit to mimeograph."

HERBERT A. SMITH.

Holding Down Expenses for Supplies and Equipment

Conservation has long been the watchword of the Forest Service, and in this time of war we are called upon to apply its principles in small matters as well as in big. Take, for example, the matter of supplies and equipment, both field and office. There has been no increase in our appropriations for the purchase of supplies and equipment for several years, nor is it likely that there will be any increase in the near future. In the meantime the cost of such material has, at a conservative estimate, advanced some thirty per cent. The needs of the Service, however, have not diminished in the least. This means that if the work is to be carried on with the usual degree of efficiency we must economize in the use of stationery, field equipment, and the like, to an extent equal to the increase in cost.

There is a chance for almost every member of the Service to do his or her part in the saving, and for the field force in particular. Forest officers can use special care in requisitioning supplies and equipment, and in using them. Do not permit your office to become overstocked with forms, stationery, and the like. If you have office equipment on hand for which you have no immediate use, inform the District Forester. Possibly some other office is in need of it. If you have filing equipment, books, photographs, maps, and other things that have ceased to be of any particular value to you, ask your headquarters office for instructions regarding their disposal. If you have Government publications, either of the Forest Service or other Bureaus, that you no longer need, frank them to the Washington office, where use can probably be found for them. Look your office over from time to time and see if there is anything that you can dispense with which might be of service to some other office. If so, let the fact be known.

If this policy is adopted by every member of the Service we can lessen the hardships which the advancing cost of materials may enforce. Members of the Service have responded so splendidly to the various appeals for economy in the home that it is believed they will respond just as readily to this suggestion for economy in the office.

B. I. SHANNON.

Praise from the Saturday Evening Post

The Saturday Evening Post of January 19 contains an editorial headed "A Good Government Ownership" in which the activities of the Forest Service are held up as "a fine example of work the Federal Government should do." This judgment is based on the facts and figures presented in the Forester's report for 1917. That the Post does not regard all Government ownership as good is indicated by the closing sentences: "The forests were public property, to begin with. By conserving and scientifically developing them the Government saves a raw asset that would otherwise be more or less wasted, and creates wealth for the public. It can find an abundant outlet for its energies in other work of substantially the same character--which is an entirely different thing from taking over an asset that has already been highly developed under private ownership, so that Government ownership means merely the substitution of a more costly system of operation for a less costly one."

It isn't within the province of the Bulletin to discuss economic questions, but this last may be the subject of some further comment in another issue.

Important State Livestock Meetings

Recent meetings of three State livestock associations are of special interest in connection with the grazing work. These were the meetings of the Idaho Woolgrowers' Association at Boise, December 28-29; that of the Idaho Cattle and Horsegrowers' Association at Idaho Falls, January 3-4; and that of the Utah Woolgrowers' Association at Salt Lake City, January 15-16. Both of the Idaho associations strongly endorse the administration of the National Forests in that State, and each passed a resolution in favor of extending Forest Service control to the remaining unappropriated and unreserved grazing lands in the West.

There has been little active cooperation with the Utah Woolgrowers' Association for a number of years, largely because of the rather neutral attitude of its officers. On several occasions the association has very severely criticized the administration of the National Forests in Utah. While the recent meeting did not bring out any particular expressions of approval of National Forest administration, it was marked by an almost entire absence of adverse criticism. There was also formal recognition of the desirability of closer cooperation between the association and the Forest Service. In line with this, a State advisory board was appointed, which conferred with Messrs. Kneipp and Fenn of District 4, who were in attendance at the meeting. It is believed that this action of the Association will soon bring about a much better understanding between Utah sheepmen and the Service.

Special Water Power Committee Meets

The special committee of the House appointed to consider pending water power legislation held its first meeting on January 21. This committee is made up of six members from each of the regular committees on Agriculture, Interstate and Foreign Commerce, and Public Lands. To it has been referred the water power bill approved by the Secretaries of War, Interior, and Agriculture, and by the President, which was introduced in the House by Congressman Raker of California on January 15.

It was decided at the meeting to hold brief hearings on the question of water power legislation, and to report out a water power bill in plenty of time to ensure action upon it and to have it handled in conference before the end of the present session. A subcommittee of six members, two from each of the regular committees represented, was appointed to compare the various bills before the main committee and to report upon their points of difference and agreement.

Agricultural Appropriation Bill Reported Out

The Agricultural Appropriation Bill was reported out of Committee to the House on January 21 and was discussed in the House on January 25.

Freight Rates from Snoqualmie Forest Adjusted

At the request of the Forest Service, the Public Service Commission of the State of Washington has ordered the Hartford Eastern Railroad and the Northern Pacific Railroad to publish joint rates, fixed by the Commission, from designated portions of the Stillaquamish Unit in the Snoqualmie Forest to proposed pulp mills at Everett and Kirkland, Wash. It is desired to advertise the timber on this unit for pulpwood, but the railroads refused to publish joint rates. The Commission announced that it would order new rates on the basis of weights as soon as the average weight per cord and thousand feet can be determined for the various species. With the rates defined it will be possible to go ahead with the appraisal. Mr. Surface, of the Madison Laboratory, will shortly go to Portland to assist the local office in the work.

Service Flag for the Atlantic Building

The necessary money has been subscribed by members of the Washington office for a service flag to show for the entire Forest Service the number of men who have gone into the Army and Navy. The dimensions of the flag are 6 by 10 feet; it will have 255 stars, with room for additional ones. The presence of the flag on the front of the Atlantic Building will serve to remind the people of Washington that the Forest Service is doing its share in the military branches as well as in the investigative work relating to war problems.

Washington Office Notes

Carlile P. Winslow, Director of the Madison Laboratory, is a visitor. Mr. Winslow comes to Washington to confer with the officers of the Signal Corps regarding the veneer situation.

Bryant S. Martineau, Grazing Examiner in District 4, is here for a six weeks detail to help in the poisonous plant eradication work.

The gym class which Lewis C. Everard has been conducting this winter, shows signs of attenuation. Most of those who started out to get strong have given it up, possibly from a growing conviction that brain is better than brawn, or perhaps on account of the tendency of humans not to stick to anything strenuous for very long. Mr. Everard hopes that with the coming of better weather the attendance will pick up again.

A ladies surgical dressing class meets in the Atlantic Building on Monday and Thursday afternoons at 4:30. The attendance is large and so is the output. The class is on for the duration of the war.

Thrift stamps are now on sale at the Atlantic Building. Mr. Ballard has the matter in charge, and it is expected that practically all the money that members of the Washington office can lay aside will go in this way to help win the war.

Don M. Johnson, who has been with us for some weeks, left Washington on January 24 for Albuquerque.

Death of Mr. Tibbott

Osmond H. Tibbott, for 13 years a member of the Service accounting staff, died on January 20 of pneumonia following an operation. Mr. Tibbott entered the Forest Service January 18, 1905, and

at the time of his death was principal clerk in the Office of Accounts. Before entering the Service he was for a number of years in the Treasury Department, and also served four years in the Insular Service at Manila, P. I. Because of his unusual ability as an accountant and his thorough knowledge of Service work, his death is a serious loss to the organization. His quiet geniality and good will made him many friends, and he will be sincerely mourned. Mr. Tibbott leaves a widow and two sons, Edward W. and Lloyd, one a student at the University of Pennsylvania, and the other at Cornell.

Forest Products Laboratory

Airplane Expert added to Laboratory Staff

Professor F. R. Maurer, in charge of the Department of Mechanics at the University of Wisconsin, has joined the Laboratory forces. Professor Maurer has for several years devoted much of his time to a study of airplane materials and designs. He will supervise the Laboratory investigations of stresses in airplanes, giving his entire time to the work.

Laboratory Waterproof Glue a Success

The waterproof glue developed at the Laboratory has been successfully used in commercial apparatus at a veneer panel plant in Chicago. The Laboratory expects to give out the formula for this glue to all plants having the proper equipment for using it. This distribution will be made under the supervision of the Signal Corps.

Dry Kiln Operators Finish Training

Fourteen more operators from various dry kiln plants have completed the Laboratory course in drying and inspecting woods used in national defense. Two airplane inspectors from the Signal Corps also finished with this class.

French Scientists Guests of Laboratory

Lieutenant Rene Engel and Professor Grignard, of the French Scientific Mission, have been visiting the Laboratory investigating the work of the sections of Chemistry and Derived Products. Professor Grignard has been awarded the Nobel Prize for his achievements in organic chemistry; his name is familiar to nearly every chemist through the "Grignard reaction."

One of the important results of the visit of these men is somewhat aside from the subject of chemistry. It is evidenced by a notice, posted the day after the departure of the visitors, announcing the formation of a class to study French.

District 6

Lieutenant W. M. H. Woodward, formerly Mineral Examiner for District 6, left Portland for Camp Lee, Petersburg, Va., January 15, where he will attend the engineer officers' training camp. On the day of his departure his office associates presented him with a traveling bag.

Because of the repeated drives to collect funds for war-relief purposes, and the attendant interruption of office work, members of the Forest Service in the Portland Office have appointed a committee of five who will receive contributions amounting to one-half of one per cent of the salaries of all members of the Service here who are willing to contribute this amount regularly. From the fund thus obtained, systematic contributions to the special appeals for war-relief funds will be made. This committee is made up of Miss Strauss, Miss Wertz, Mrs. Whiting, and Messrs. Merritt and Jackson.

Forest Supervisor N. G. Jacobson, who has handled the Weeks Law inspection and fire protection of the "O. & C." lands in Oregon for the last three years, left Portland this week for Bend, Oregon, to take charge of the Deschutes National Forest.

Three blocks of live spruce suitable for furnishing rived airplane construction timbers in the Quinalt Lake region of the Olympic National Forest are being advertised, the minimum prices being $6, $5.50, and $4 per thousand. These three blocks include 95 trees with estimated contents of one million, forty-five thousand board feet.

The District Office women's committee doing welfare work for the men of the Forest regiments, forwarded thirty-nine sweaters and four pairs of wristlets to Washington, January 19. This is the second shipment of knit goods made by the committee.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

January 31, 1918.

Colonel Graves Back from France

Lieut. Colonel Graves returned from France on January 30. He looks to be in the best of health, and expresses the keenest satisfaction with the work of the Forest Regiments. There was delay in obtaining the sawmill equipment, but the logging work was taken up as soon as the 10th Engineers arrived in France, and that organization and the battalions of the 20th that are on the ground have not been idle a day. The 10th Engineers, Colonel Graves says, is as efficient a body of men as he ever met, and their work in the woods has been highly praised by French foresters.

The regiment is split into detachments, some of which are working in central France, some near the Swiss frontier, some in southeastern France, and some in forests near the fighting front. A district organization has been set up, and as units of the 20th Engineers arrive they are assigned to whichever of these districts most needs them. A portion of the timber being cut is taken from government forests assigned for the purpose; the remainder comes from private forests that have been purchased.

Colonel Graves, who originally was commissioned as Major, was promoted to his present rank while in France. In next week's issue we hope to have his own account of what the Forest Regiments are doing in the war.

Our Work at Home

Sooner or later the great war will be over. The men who have done the fighting for us will be coming back--to what? What opportunities will await them in the land for which they have risked their lives? It is none too early for those of us whose lot it is to stay at home to attempt an answer to that question.

In the army of returning soldiers will be thousands of men recruited from the logging camps and the sawmills. Through the forest regiments and other branches of the military service the lumber industry has contributed perhaps even more than its "bit." These men have come from an industry which heretofore has been nomadic in character, moving from region to region as the timber resources of each in turn have been exhausted. Prosperous towns have been built up to thrive for a few years while the timber was being cut, only to decay or even vanish with its disappearance. Deserted villages are too often signposts that have marked the trail of the industry. Living conditions have been crude, and permanent homes and a normal family life impossible.

The men who have seen service in France and Flanders will come back with new ideas, new viewpoints, new standards of democracy and independence. They will demand an opportunity to live on a higher plane and to exercise more fully their rights of American citizenship. And they will inoculate their fellow workers with similar aspirations.

Here is a challenge and an opportunity. The way to meet both is for lumbermen and foresters to cooperate in securing a permanent forest industry, one that will enable its workers to live settled, self-respecting lives. There is but one way to do this--by practicing forestry. Reduced to its simplest terms, this means treating the forest as a renewable resource, not as a mine. Any

other method of handling our forest resources will mean that the lumber industry will keep on being a roving industry, and lumber workers roving, homeless men. Forestry will make possible the substitution of permanent communities for wandering camps and temporary towns; it will provide continuous employment and real homes for the forest workers; it will be a source of strength to the nation in the critical period of reconstruction that must follow the war.

Then let us ask ourselves this: When the men who have been fighting our battles in France come home again, will they find that we have been doing our part to make the country a better place to live in? Or that we are slackers in this tremendously important work that is given us to do? The answer will depend upon how aggressively we go about the task of putting the principles of forestry into practice. By no other means can both the condition of the worker and the welfare of the industry be safeguarded. The opportunity is here and now. Are we ready and willing to take advantage of it?

S. T. DANA.

The National Livestock Meetings

The annual meetings of the two National Livestock Associations for 1918 were rather remarkable for several reasons. In the first place, both met during the same week, in the same city, and in the same hall. The Cattle Association held sway the first three days, and the Sheep Association the rest of the week. There was a large attendance at both meetings of the big men in each industry. Many sheepmen attended all of the sessions of the cattle growers, while an equally large number of cattle men remained over for the meeting of the sheep association. One was impressed with the number of men who were interested in both meetings through the ownership of both sheep and cattle.

Naturally, war conditions, meatless days, the ban on lamb consumption, and matters of this kind were prominent in all of the discussions. The Food Administration came in for pretty severe criticism by many speakers, all of which was answered by Mr. J. P. Cotton, Mr. Hoover's personal representative, in a most convincing manner. Undoubtedly the presence of Mr. Cotton cleared up the situation very materially and headed off pretty drastic resolutions concerning meatless days.

As might have been expected, the Forest Service did not receive the attention it has heretofore. In the cattle meeting resolutions were passed to the effect that the grazing fees are plenty high enough, considering the difficulty of handling live stock on National Forest ranges. At the sheep meeting nothing whatever was said on the subject. Representatives of the Forest Service, however, learned from members of both associations that the larger stockmen are not worrying about the matter. The majority frankly state that the feed they secure on National Forest ranges is ridiculously low priced, and that they would be willing to stand for a very considerable increase if, in return, they could secure from the Service five or ten year permits, irreducible except for damage to the range.

For the first time in the history of either Association the game question came up. Each passed practically the same resolution, namely, that they wished to place themselves on record as being in full sympathy with the protection and preservation of game animals, and urging the establishment of federal game preserves or sanctuaries for this purpose. The whole value of the resolutions was practically nullified, however, by a closing sentence which stated that while the associations were anxious to see federal sanctuaries established, they were opposed to having them located on any land suitable for grazing cattle and sheep.

One of the most remarkable incidents of the week was the sale, for the benefit of the Red Cross, of an imported ram donated

by the Wyoming Wool Growers' Association. The ram was put up at auction on the second day of the National Wool Growers' meeting, and each man who secured it immediately donated it back to the Association. In about two hours over $6,000 in cash was secured, while individuals donated 13 additional rams of various breeds to be sold at the fall sale of rams at Salt Lake. The next day Harry Lauder, the Scotch entertainer, appeared before the Association, and after singing some of his inimitable songs, made a stirring address on the war. As auctioneer he put up the ram for sale again, netting over $11,000 for his Crippled Scotch Soldiers' fund. Taking the sales together and the donated rams, it was estimated that the Association raised approximately $20,000 for these two funds.

Reports of range conditions from every portion of the west were extremely favorable. Stockmen from the Northwest almost universally reported the winter as having been so mild and open that feeding, except in a few cases, had not begun by the middle of January. From the Southwest, especially western Texas and southern New Mexico, where conditions early in the fall were decidedly serious, the report was brought that stock of all kinds were holding their own remarkably well; and owners hoped to get through with much less loss than was originally anticipated.

Both Associations decided to maintain at Washington a committee of practical livestock men for the purpose of looking after the interests of the industry during the war; "Men who can talk our language," as one delegate put it.

Both Associations re-elected the officers of the preceding year. The next meeting of the American National Association will be held at Denver, while the Sheep Association meeting will be held at Salt Lake.

WILL C. BARNES.

Appropriation and Deficiency Bills

The Agricultural Appropriation Bill passed the House on February 1. The Forest Service section went through without change, except for an amendment to the paragraph authorizing the payment of not to exceed two cents per mile for motorcycles and six cents per mile for automobiles used for official travel. The change, however, is more in the wording than in the substance of the paragraph, and it is expected that the provision will go into effect substantially as first proposed.

Mr. Potter appeared before the Appropriations Committee of the House on January 31 to explain the deficiency of $775,000 incurred by the Forest Service in fire fighting. Favorable action by the Committee is looked for.

Breezy Official Reports

A recent editorial in the Washington Post comments, under the above title, on a recent Forest Service news item. For a long time, it says, official reports of the Government were undistinguished by the qualities that command the attention of the casual reader. "While containing a vast amount of useful information, it has been charged that there is a conspicuous lack of the quality that that thrills. To lapse into modern parlance, they lack 'pep'."

But, says the Post, a change has been observed of late. "As a sample, the following is submitted, taken from the 'Notes' of the Forest Service:

> "According to one of the German forestry journals, the Kaiser, in 1908, killed 1,995 pieces of wild game, including 70 stags, elk and roebuck. At that time he had slaughtered a total of 61,730 pieces of game, more than 4,000 of which were stags, and was the leading exterminator of wild life in the world. As a slaughterer of men, women, and children since 1914, however, he has been the foremost exterminator of human life in all history.

"It is submitted that the foregoing answers every critical requirement. It is terse, interesting, pointed, and provocative of thought. The 'punch' is there. There may be a bit of that advertising which the most widely advertised figure in the present world would like to have. He is welcome to any benefits that may accrue. A bit more of the same, bearing the official brand, will do no harm here. It is to be hoped that gentle pacifists everywhere will be listed to receive these government 'handouts,' as it is understood to be the official policy to place them where they will do the most good."

A Soft Word Turneth Away Wrath

All of the editorial comment that comes our way is not in the nature of a bouquet. Here is something from the Denver News that exhibits a faint trace of sarcasm. But, at that, it's softened a good deal by the last sentence. Smith Riley says it refers to him:

"The annual report of the United States Forest Service is amazing at first blush. For instance, we are told in cold type that 853,307 persons visited the forest preserves in Colorado. Wonderful, is it not? It is to be hoped that such crowding did not interfere with the trees in their growth.

"But after reading a little further we begin to get light. There are seventeen National Forests in Colorado. Wherever the tourist may travel he strikes a forest reserve. If he goes over the range, he has to enter a forest reserve; if he climbs Pikes Peak, ditto. Truly we are under foreign landlordism. But, after all, Uncle Sam has been a beneficent landlord of late, and his factors are bright, capable, obliging young men."

Washington Office Notes

Not a little excitement was caused among members of the Washington office on the afternoon of January 29 by the collapse of the moving picture theatre under construction next door. The partially finished roof, in some places on a level with the seventh floor of the Atlantic Building, was the first thing to give way. The resultant fall of steel girders, wooden scaffolding, concrete work, and bricks made many think that an earthquake was at hand. Fortunately, nobody was killed or injured. The wrecked building presents the appearance of having been under the fire of German guns.

The Forest Products Laboratory is well represented in Washington this week. Messrs. Winslow, Hawley, Bateman, Teesdale, Mueller, and Surface are all here. They are on war work of various sorts, chiefly veneers and distillation.

Colonel Graves gave a talk to members of the Washington office on the afternoon of February 2 about the work of the Forest Regiments in France and some of the impressions he had gained from his experiences there. To accommodate the entire Washington office force, the talk was given in the auditorium of Woodward & Lothrop's department store near the Atlantic Building.

Forest Products Laboratory

The bare suggestion that the University heating plant might close, temporarily, caused Timber Physics much worry for its kilns, which are filled with choice airplane stock. Once before, in such an emergency, T. P. went forth and switched a passing C. M. and St. P. locomotive into the back yard, and tied it up with the kiln steam line. If anything is scarcer than a lump of coal just now, however, it is a locomotive, and T. P. may be yet reduced to carrying its humidity from home in tea kettles.

District 1

Weather conditions on the Absaroka just north of the National Park have been very mild, although the fall of snow is heavy. Up to the tenth of January not more than 50 to 75 elk had crossed the Park line. Recently, however, heavy storms have caused a veritable exodus of the elk from the Park. One herd of about 800 hung about the flats above Gardiner for a long time. The elk are not moving far and are still in the vicinity of Gardiner. No killings have been reported.

On January 19 the members of the Missoula Office staged a vaudeville performance at Union Hall, for the purpose of raising funds to buy wool for the forest regiments. The net profits amounted to $110. The following account of the affair is taken from the Missoulian;

> "Clever wasn't the word for the entertainment given by the members of the District office force of the Forest Service under the auspices of the Women's Comforts League at Union Hall Saturday night.
>
> "Many a professional troop has caused less pure, unadulterated mirth than did the men and women who took part in the program through which a comfortable sum was netted for the benefit of the League's yarn fund.
>
> "Major F. A. Fenn acted as ringmaster, and every time he slashed his whip, literally speaking, his companions in crime appeared in glee-provoking sketches which kept the crowd in a continual uproar. Despite the fact that the actors began preparation for the entertainment only a few days ago, every detail was complete.
>
> "The hit of the evening was a sketch, "The Knitting Bee," in which half a dozen husky forestry men, garbed as women of fashion, took part. Jean Ewen, a husky draftsman, played the part of Baby Doting in original fashion, though he found his mustache a handicap in playing the part. Fred Thieme as Mrs. Hoover, Lenthal Wyman as Mrs. Gossip, Charles Skeele as Mrs. Munsingwear, J. B. Yule as Mrs. Brewer, Joe Halm as Mrs. Teapot-Ketterson and Charles Cheatham as Mrs. Doting all displayed excellent tact in working knitting needles of all sizes.
>
> "Maurer and Swan, prize fighters; J. A. McGowan, ministerial auctioneer; Supervisor Shaw, monologist, and C. C. Delavan, magician, were other headliners."

District 2

The Forest Service seed extracting plant near Fraser on the Arapaho Forest was totally destroyed by fire at noon, January 23. The cause of the fire has not yet been ascertained in the District office. The buildings and equipment, together with 2,500 bushels of lodgepole pine cones awaiting extraction were burned. Operations to extract the seed from 4,000 bushels of cones began January 7. At the time of the fire, 1,500 bushels had been cleaned, leaving the remaining 2,500 bushels, valued at $1,125, to be destroyed. Twenty-four hundred pounds of lodgepole pine seed, valued at $3,600, which had been previously extracted and stored in the plant, were saved.

At the request of the city administration, the Service will donate 30,000 yellow pine and Douglas fir transplants from the Monument Nursery for planting along the highways throughout the Denver mountain parks system, next spring.

At its meeting last week the Colorado Livestock Association passed an unsolicited resolution favoring game sanctuaries

on the National Forests, provided the stockmen are consulted in their establishment. The association also passed a resolution that all public lands outside the National Forests be placed under government control as essential to the livestock interests.

The members of the District Office held their annual ball on the evening of January 18 at the Adams Hotel.

District 3

The fire season in the Southwestern District appears to have ended at last--at least until next Spring. Snow is reported to have fallen as far north as the Carson and as far south as the Crook.

Ranger Marks of the Apache has recently completed a 60-foot fire tower on Bear Mountain, with the assistance of Packer Shelby and one temporary laborer--the laborer being very temporary since the draft has taken nearly every ablebodied man from that vicinity.

Seventeen prosecutions for violation of the game laws were initiated by Forest officers during 1917. All but two cases resulted in conviction.

District 4

Mr. Espey, a special agent of the General Land Office, called at the office recently to discuss the stock driveway situation in southern Idaho. He has now definitely located the several trails necessary to permit the people of Snake River Valley to gain access to the Boise and Sawtooth Forests, and if no objection is raised by the State land commission, he will recommend the permanent withdrawal of these driveways which will involve approximately 600,000 acres of Government lands.

At a conference of members of the Office of Public Roads and the Forest Service, a tentative agreement was reached to recommend the postponement of major road projects in all cases where the construction of the project would necessitate the importation of outside labor in competition with other more important industries or would in any way divert man power or horsepower from other activities temporarily more important to the nation.

The Forester has authorized the District Office to initiate preliminary negotiations with the Boise-Payette Lumber Company looking toward the exchange of certain timbered lands owned by that company in the Boise, Payette, Idaho, and Weiser Forests for National Forest stumpage located adjacent to the land holdings of the company.

The Service is cooperating with the Extension people in Nevada, and arrangements have been made for lectures on range management at several places in that State. These lectures are illustrated with lantern slides prepared from photographs taken upon the ranges in this District. Special emphasis is placed upon the necessity of cooperation among small owners in handling cattle on the range, and important phases of range management are briefly touched upon.

District 5

"Uncle Joe" Elliott left recently for Hot Springs, Arkansas, for check scaling and timber survey work on the Arkansas during the winter. He will return to District 5 about May 1.

Aroused to the acute need for prevention of fires in forest, range, and grain fields as a war measure, State and Federal officials and representatives of the lumber industry have organized a joint committee to find solutions, if possible, of fire prevention problems in California. This committee, known as the Forest Industries Committee, is composed of State Forester G. M. Homans, Chairman; Acting District Forester Roy Headley; Professor Woodbridge

Metcalf of the College of Forestry, University of California; C. Stowell Smith, Secretary of the California White & Sugar Pine Mfrs. Assn; and R. E. Danaher, President of the R. E. Danaher Lumber Co. At a meeting of the committee January 19, in San Francisco, plans were discussed for an intensive State-wide publicity and educational campaign to awaken the public to the immense amount of food and war materials destroyed on the Pacific Coast last summer by fire, to the large amount of money spent in fire control, and the great amount of labor drawn from farms and factories to fight fires.

District 6

The District Forester has awarded the sale of twenty-four million feet of Sitka spruce and one million feet of western hemlock on the Tongass to the Craig Lumber Company. The area is located on Long Island, which lies just off the west coast of Prince of Wales Island. The tract embraces 600 acres, extending northwest from Howkan Indian village for about three miles. The spruce is of exceptionally fine quality for Alaska and will yield a good percentage of airplane stock.

That the Spruce Production Division of the U. S. Signal Corps appreciates the cooperation of the Forest Service is indicated by the following extract from a letter written by Captain Cloyd H. Marvin, by direction of Colonel Disque, to District Forester George H. Cecil. The letter acknowledges receipt of reports and maps from the Forest Service and says: "They are only a part of the hearty cooperation you have so freely extended to us, and I can only express my appreciation by using the simplest terms I know--I thank you."

The following is an extract from an editorial in the Oregon Journal for January 21, 1918:

> "There are plenty of figures readily accessible which will tell what the Forest Service is doing. It has no secrets, no axe to grind, no favorites to coddle. During the year just past it has sold twice as much timber as ever before. Some that it sold is still standing. Some has been cut and removed; for the latter the forest service took in a million and a half dollars. The service has perfected methods of kiln-drying hemlock, walnut, birch. It has taken steps toward converting sawmill waste to commercial use. It has served the country capably and honestly. Those who will take the trouble to look at what is going on in the national forests will witness the upbuilding of a permanently productive source of wealth for the people."

Mr. Flory is on a field trip, visiting the Supervisors' headquarters in eastern Oregon, taking up the question of 1919 allotment estimates. He will visit all the Supervisors in Oregon. Mr. Merritt will take the matter up with the Supervisors in Washington.

Several years ago basket-willow cuttings were furnished to a number of persons in District 6 to find out if there are regions in the District specially adapted to the growing of the species. Mr. Luther J. Campbell, of Walla Walla, Washington, writes that he has been able to grow some good basket willow from the cuttings. He sent 150 pounds to the Willow Craft Furniture Company, at Portland, who found it suitable for their use and requested him to take up basket-willow growing on a larger scale.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

February 7, 1918.

Colonel Graves on the War

To Members of the Forest Service:

In this issue of the Bulletin I want to tell you something about the work of the forest regiments in France, and something also of other impressions I received of the war during my period of service. I know that every member of the Forest Service is doing whatever he or she can find to do to contribute toward this great enterprise, an enterprise which means so much to this country as well as to the whole world. I realize, too, that you are anxious to know as much as possible of what is going on in France, and what your friends and relatives are doing there. In the limited space at my disposal I must confine myself to the matters I think will be of most interest to you, that can be discussed.

My task in France was to prepare the way for the 10th and 20th Engineers and auxiliary troops that were to go over to work in the French forests. An organization to handle the work has been built up; forests have been secured, partly through grants by the French Government, partly by purchase from private owners; a procedure for acquiring additional forests has been established; and the actual work of logging and milling is well under way. Aside from the main headquarters, an effective district organization has been established. When my work in France was completed and I left for home--some three or four months behind the original schedule--Major Greeley took my place at headquarters of the Lines of Communications in charge of the technical forestry work; Colonel J. A. Woodruff, who has done such admirable work in organizing the 10th, was in military command of the forestry troops.

I shall try to take you with me in imagination on a typical field trip in the French forests, such a one as I took last October in company with Major R. E. Benedict, the commanding officer of the district. Our object was to inspect an encampment of a section of the 10th Engineers which had been established only a few days before. We drove in a Government automobile through a beautiful forest country, over splendid roads lined with sycamore trees, at that time of the year in yellow leaf, with a background of green pines. (I wonder if we have ever thought of planting sycamore in our pine regions to get that effect.)

The people of the villages through which we passed were quick to recognize the American uniform, chiefly by our service hats, or "Pershings" as the French often call them, and greeted us with the greatest cordiality. Finally we came to a little village and observed near the railroad station a crowd gathered to watch some curious operation. Coming nearer, we saw a group of husky American lumberjacks working up 50-foot pines preparatory to loading them on the cars. As we came to a stop, Captain D. T. Mason, formerly of Missoula, greeted us. These were the first trees cut in this district; they had been felled and taken out of the woods within three days after the men had left the train which brought them there--and they did not have a single horse.

Then we went on a little farther through the pine woods to a beautiful camp. There were rows of Sibley tents, and men moving here and there, all busy, all with a definite purpose. Some were putting up shelters for horses which they expected in a day or two. Captain J. D. Guthrie and Captain I. F. Eldredge met us. They told us how quickly the camp had been put up and the men established, and how they had astonished every one in that section by

their speed. As we went about I heard ringing through the French forests, "Watch out below." Then a tree would crash down, and I would know that another pile was being prepared for the docks that are to receive the many troops and the great quantities of supplies that we are sending over there.

I wish you could have seen those men in the woods. They had had a long and trying trip across the water; they had been taken through France, not in Pullmans, but in the only kind of cars available for transporting them at the time; they had to make camp in a hard storm. Yet they accepted it as all troops in France are accepting such conditions. And now, when they were at last in the woods, they were swinging their axes, troubles forgotten--joyful, singing, shouting, happy, well--everybody working hard and thinking how his particular tree was going to serve some particular purpose that would help our soldiers to final victory. They had not waited for horses; they were picking up the logs by man power and getting them out as best they could with the aid of a logging truck improvised from a supply wagon. What did they care whether they had horses or not! They were at their goal; the work was right in front of them; they were eager to get at it; and they were getting at it with all their might.

They were a fine body of men. Not all saints, of course. There were two of them, for example, who had been a little slow to pick up the military end, but whose boast had always been that, while they might not be much at drilling, they were "hell on cutting down trees." These men, as it turned out, were the first crew to fell a tree for the American soldiers in France. Not unnaturally, perhaps, they felt that they ought to celebrate, which they did, with the result that it took four men to put them in the guard house. But the affair had its good ending, for the local mayor ordered that no more liqueurs be sold to men wearing the American uniform. Let it be added that the men took this in good part, just as they have taken in good part every other restriction necessary for maintaining the highest efficiency.

And they are doing other fine things, too. They are endearing themselves to the people of the place where they are at work. It means a good deal when a soldier, coming along the road, sees an old woman with a wheelbarrow--a heavy barrow--and, gently pushing her away, takes the handles and trundles it himself. At Christmas each company at that camp raised 700 francs for a celebration and gifts for the children of the neighborhood. These may be little things, but there are going on in France lots of other little things like them that cut deep. The people appreciate it, and I heard about it wherever I went.

I could take you, if I had the time, to other parts of France where other units of the 10th and 20th Engineers are located that present a similar picture--a different class of timber, perhaps, somewhat different logging conditions; somewhat different living conditions; but essentially the same. In the colder parts of the mountains the men have established themselves in comfortable barracks; in other places where it is not so cold they prefer to live in tents with board floors. In all the camps are being established buildings for recreation and amusement.

At the time I left France all of the men in the 10th and 20th Engineers were in splendid health. They are living under healthful conditions, and this accounts for it. I was told just before I came away that in one group of camps containing 400 men there was not a single case in the hospital.

I was fortunate to arrive in France early enough to see something of the first expression of welcome by the French people to the American troops. I was in Paris on the 4th of July when several companies of American Infantry marched through the city. I saw the enthusiastic greeting accorded them. And I was struck with the eager expression on their faces; some of them veterans and marching splendidly, others newer at the game and a little timid

least they should not keep a good line, but all fresh, young, stalwart, enthusiastic. Behind them marched one of the star companies of one of the star regiments of France--a regiment with a splendid record for valor. It was tremendously impressive to see American soldiers marching through Paris and French troops marching with them. It typified the union of two great nations in a common cause.

That evening officers of the French Army in Paris gave the American officers a dinner at the Military Club. The club is on the Avenue de l'Opera, a broad and beautiful thoroughfare. When I arrived there, a few minutes late, I found an enormous crowd packing the streets, through which policemen had to clear a way for us. The minute the people saw the American uniform there were great cheers, vivas, and almost every other mark of enthusiastic greeting. About half an hour after we sat down to dinner a French officer came in and said that the people would not go away and that the crowd was bigger than ever. A balcony runs around the Club, and we all went out on that. Never before in my life have I heard or seen such cheering and enthusiasm. The people forgot themselves; they threw their hats in the air with no thought of ever getting them again; they waved and cheered, and cheered again. Along the balcony were draped American and French flags. We tore these from their fastenings and, waving them together, led the crowd in singing the Marseillaise. They kept up the demonstration for a full half hour. It was representative of how the French people feel and of the spirit in which they are receiving us; not as saviors, not as a people coming over to rescue France, but a people, a nation, coming from across the sea to fight side by side with France.

My work took me pretty largely back of the lines, and in those early days I was usually the first American officer who had come to the places where I went. The papers had published pictures of General Pershing and of the typical American soldier, and everywhere the people recognized us by our hats. As we drove through the villages the children would rush out into the street shouting "Les Americains! Les Americains! Then the older people would run out, cheering and waving their handkerchiefs. It was a delightful and a tremendously affecting experience.

It happened that I was the first American officer at a number of camps where German prisoners are kept. One such camp was in a Government forest that we are going to take over, where the prisoners were being employed to get out cordwood and some small timber. If it had not been for the presence of the Boches, the camp would have reminded you of a fairly well organized lumber camp in the North Woods. The men had their bunks and little mattresses to lie on. They worked in the forest, with a large measure of liberty, and they seemed to be in very good health. They had their own German cooks to prepare their kartoffelsuppe and other things that they like. The bread they got was perhaps not quite so good as that furnished the French soldier, but it was plenty good enough and nourishing. While at this camp I reviewed the prisoners. I rather imagine that the French officer who suggested the procedure had in mind to impress upon the Boches that Americans were in France. At all events they had the opportunity to see for themselves that it was a fact, and I am glad to have been the means of conveying it to their minds.

The night before I left Paris, which was New Year's Eve, a number of officers of the forest organization who happened to be in town gave me a little dinner. Major Greeley, Major Woolsey, Major Peck, Capt. Stuart, Capt. Bruce, Capt. Ringland, Capt. Moore, Capt. Granger, Lieut. Wolfe, and Lieut. Agee were present. One of the things which they asked me to do was to tell the members of the Forest Service here how much they and all the men working in forestry in France appreciate the sweaters and other useful articles you are sending them. I can assure you that this is not simply a polite expression of thanks. I have seen the men, in camp, in the

field, and at headquarters, when they have received the things you have sent, perhaps yourselves have made them. I know what it means to them, not only from the standpoint of sentiment, but also from that of real comfort.

On the way home I got a little glimpse into the work of the Navy that impressed me tremendously. It was a long trip, but one which I would not have missed for anything. It did not, after all, seem such a serious matter to run the submarine blockade, for there were the destroyers to protect our ships, but it did seem a pretty serious matter for a light boat--they do not, of course, bring back as heavy loads as they carry over--to run the blockade of six very severe North Atlantic storms, which is what we did. You feel a whole lot different in a storm--one, for example, that necessitates the ship turning back toward France, as we had to do twice--when you have confidence in those who are in command of the ship and when you have seen the crew of that ship, a splendid, disciplined body of young men. Those were the kind of officers and men we had on our ship, and so far as my own observation goes and from what others have told me I am confident that these are the kind of men of which our whole Navy is made up.

Another thing which impressed me when I got back here was the tremendous things which this country is doing. We have really got to judge our progress in this war by prospective; we have got to judge it by periodical progress; by achievement during a period; and by results. It is results that count, and they are the only things that do count. That is the first thing that one learns when he goes into the Army. There are no excuses in the Army--or in the Navy either, I presume. When an order is given it must be carried out. There are no reasons why it can not be carried out, because it has got to be carried out. And that is the only way that the war can be won. So to judge of our progress by achievement is, I think, the only way to obtain a true viewpoint, one in which we will not be deceived by something near at hand that may possibly obscure real accomplishment.

In France, of course, one gets very close to the war, and so perhaps appreciates a little more what we are doing. One sees more vividly the terrible consequences of war, the sorrow and distress of the people, homes broken up, homes ruined, industries destroyed, economic conditions overturned.

It is not necessarily hate that is in ones heart; it is more a realization of what a monstrous thing it is that has possessed a nation, perverted its sense of honor, crushed its sense of the proprieties and decencies, and made it do monstrous things. The world has been made an impossible place to live in until this monstrous thing, however you express it, personally or impersonally, individually or collectively, is swept away. Not until then can we follow peaceful pursuits, not until then can we know that our homes are not going to be wiped out, that happiness is not going to be destroyed, that unhappiness is not going to be spread through our land, let alone other lands. I do not see how any one who comes at all in contact with this war can feel any other way. And the feeling that I have and that every man has who has seen this war at close range is spreading farther and farther away from the center of things and is entering deeper and deeper into the hearts of the people of this country. The realization of this terrible thing that has been forced upon the world, that has been forced upon us, and for the cure of which we count it our duty, our privilege, and our joy to make every sacrifice.

HENRY S. GRAVES.

Land Exchange Bills Passed by Senate

On February 6 the Senate passed a number of land bills affecting National Forest administration. One of these authorizes the Secretary of the Interior to exchange any lands in Government ownership, including National Forest lands, coal lands, oil lands, etc., for private lands of approximately the same character and value within Government reservations. Another bill authorizes the inclusion within the Oregon National Forest of all lands on the Bull Run watershed that were recovered by the United States as a result of the Oregon and California Railway suit. Two other bills provide for exchanges in the Sevier National Forest. A fifth bill authorizes an exchange of lands in the Wasatch Forest on the watershed from which Salt Lake City gets its supply, and a sixth authorizes the owner of several mining claims in the Pike Forest to purchase some 45 acres additional. The last two bills were reported upon adversely by the Department of Agriculture. None of the bills have been acted on in the House.

Results of the Knitting Work to Date

While it is a cause of keen regret that we had to slow down on sweater-making at the very moment when we had gained full headway and when it was most important to keep up our efforts, the Forest Service may reasonably feel pride in what has been accomplished.

By the middle of January we were organized for an output of approximately 1,300 sweaters a month, had we been able to continue the supply of free wool. But there has been no wool to give out to Forest Service knitters in Washington since that time, and the needles are ceasing to fly as the yarn previously allotted comes back in finished garments. Several of the Districts have sent for wool which they have raised funds to pay for; a temporary shortage in the local Red Cross wool supply has necessitated filling such orders from the Navy League. It was estimated February 1 that there was out wool enough to make about 600 sweaters.

There was turned over to the 20th the last week in January 405 sweaters, 39 helmets, 100 pairs of wristlets, and 10 mufflers, while 22 pairs of socks were sent across seas to the 10th. Since February 1, 44 pairs of socks have been sent the 10th. The sweaters furnished the 20th afforded them a surplus with which to take care of newcomers as they arrive.

The total number of garments furnished the 10th and 20th to date is: 969 sweaters, 299 pairs of wristlets, 152 pairs of socks, 58 helmets, and 50 mufflers. There are now on hand in Washington, at the Forest Service, 430 sweaters, 44 helmets, 106 pairs of wristlets, 13 mufflers, and 2 pairs of socks. At the Department there is a considerable additional number.

The 20th has had directly from the Red Cross 4,500 sweaters.

The cost of wool has been defrayed from the following sources:

Contributed by the Forest Service, ...	$1,264.00
Raised and expended by Mrs. Graves personally, ...	227.20
Expended by the Department of Agriculture to Jan. 31, ...	1,700.00
Contributed by the Lumber and Forest Regiments Relief Committee	2,100.00
Total	$5,291.20

In addition, District 4 bought and furnished 65 machine-made sweaters, and a member of the Washington office 3.

Of the wool bought by the Department of Agriculture out of its general fund (to which the Washington office of the Forest Service contributes), a small fraction goes into garments furnished members of the Department who are serving elsewhere in the Army and Navy, but the Forest Regiments get most of the work. Thus the Department of Agriculture, including the Forest Service, has furnished more than half the money for buying the wool, as well as the bulk of the knitting.

Forest Products Laboratory

Pulp and Paper Will Winter in the South

Under the pretext of carrying out commercial demonstrations at a pulp mill somewhere in Texas, the Section of Pulp and Paper has packed its desk ornaments and trekked for a warmer clime. P. P.'s last words were sad ones for the Publicity office. They were: "While we're away, we do not wish to send or receive news of any kind." In the hope of changing their mind, we refer them (Dr. Kress particularly) to Nat Will's story of "No News, or What Killed the Dog."

District 2

The assistance of all forest officers in the District has been enlisted on behalf of the Colorado State Museum to obtain specimens of the nest, eggs, and at least one parent bird of the species known as the "camp robber." Last year, the men on five Forests in Colorado were asked to aid in the search and despite the fact that probably no less than 100 men, including lumberjacks, were on the lookout for specimens, no eggs or nests were found, although numerous reports were investigated.

In January, Supervisor Kelleter, together with the Pennington County Agent and an expert on livestock matters from the Agricultural College of South Dakota, conducted a series of ten community meetings in the Black Hills region. Ways and means for controlling and improving livestock business, and National Forest range problems were discussed, particular attention being given to community organizations. One result of the meetings will be the establishment of several local livestock organizations.

Similar meetings in Colorado, planned by the Supervisor of the Arapaho Forest and representatives from the Colorado Agricultural Experiment Station, will be held at Walden, February 15, Hot Sulphur Springs, February 28, and Kremmling, March 2.

District 5

District Engineer Fowler has been appointed Consulting Hydro-Electric Engineer for the U. S. Fuel Administration in California. Mr. Fowler's knowledge of the hydro-electric situation in California will be placed at the disposal of the Fuel Administration in its efforts to stimulate war industries and conserve fuel.

District 6

The Crater has been utilizing the services of scalers and yearlong District Rangers whose districts can spare them during the winter months in building a road into Dead Indian Soda Springs. The men are sure after they have graduated from this school of experience that a trench in Flanders could have no horrors for them so far as mud is concerned. They are camped in tents and do their own cooking. They all give thanks, however, for a very mild winter. An allotment of $421.00 of "10%" money was secured for the purchase of powder and other incidentals for this project.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

February 14, 1918.

Community Service

Underlying the administration of the National Forests is a big idea - public service. We give it in our everyday work, in timber sales, in grazing management, in special uses, in the construction of permanent improvements. Every regulation under which the National Forests are administered has it as the end in view. But should it stop there? Should we be content to confine our public service to straight, everyday administration? Shouldn't we make it broader than that? Are there not opportunities awaiting us in the communities the Forests serve?

Forest officers have the chance to be leaders in all matters relating to community betterment. As Government officials they are looked up to; by training and experience they are peculiarly fitted to handle community problems. Should not community service, then, be regarded as an integral part of Forest administration? It should, if we are to carry out fully the National Forest idea. We ought not to get into the habit of thinking that it is something apart, a matter that can be taken up at odd times if one has the inclination. Other things being equal, the most efficient Forest officer is the one who is the best citizen.

Here are some cases in point. In a certain forest community people had to travel over a bad piece of road to get to the county seat. The local ranger interested himself in the matter of having that road put in shape. Each user was asked to assist. One man sent a team and wagon; another gave his time; another furnished a plow and scraper; another sent his two ranch hands for four days; another furnished a bill of supplies to feed the road camp. The county commissioners, seeing that the people were in earnest, assisted with road funds. In this way the road was put in shape, and as a sequel a good roads club was formed in that county. It did not take much of the ranger's time and effort, but the results were big.

In another forest community a ranchman was having a hard time on account of sickness. He had started to build a barn to house his stock, but could not finish it before winter. The local Forest officer organized a construction picnic among his neighbors, which resulted in the building of the barn and an increased feeling of fellowship throughout the community.

These are but two examples. Any number of other things can be done toward making the forest communities better places to live in. In a certain locality a stock association is needed to bring the raisers together and ensure better breeding and handling. The local Forest officer talks up the value of such an association. When the stockmen decide to form it, he draws up the by-laws and suggests officers and a day for meeting. Mail service is needed in a certain valley. The Forest officer takes the initiative in circulating the petition. And so on almost indefinitely.

Then there is the opportunity for disseminating information that comes in the Weekly News Letter and the publications of the Department of Agriculture. The Forest officer's knowledge of the settlers' individual problems enables him to place valuable information where it will do the most good. Some local residents may be hard to approach. In that case it comes down to a matter of studying your man. When you have done that the rest ought to be easy.

People in forest communities are always being faced with problems relating to land entry, final proof, and the like. The Forest officer can help to smooth out the difficulties not only of those who settle in the Forests, but also of the people who take up land adjoining the Forest. It should not be a difficult matter to determine which settlers are failing to comply with the law purposely and which are failing merely through ignorance. A word here, a comment or suggestion there, in regard to residence, cultivation, water development, etc., will help the settler in a very practical way. And throughout the community there will soon grow up a general feeling that the Forest officer stands for compliance with the law. People will turn to him for advice and assistance. He will be recognized as an authority on land matters.

What rewards will come from this kind of service? The majority of Forest officers are kept pretty busy with their regular duties; to go outside of these will mean additional time and effort; only a little in some cases, a good deal in others. What benefits may be expected from it?

For one thing, it will give the Forest officer a position of prominence and trust in his own community. Whether viewed from a personal or from an official angle, this cannot be anything else but desirable. For another thing, it will make his regular work easier. He will have the confidence of his fellow citizens, confidence in him and in what he stands for. As the next step he will have their hearty cooperation in his work, and when this is secured many of the ordinary difficulties of administration disappear. As for the additional time required in handling community problems, that can often be found by taking up lost motion in the regular administrative work. There is such a thing as lost motion--in a good many cases. Analyze your methods of handling Forest business and see if, by revising them here and there, you can't find the time you need for community service.

National Forest administrative work and community service react upon each other. Each is merely a part of the whole plan to make the National Forests serve the broadest public interest.

SMITH RILEY.

No Forest Service Names So Far Among Tuscania Dead

Up to February 16, when this issue of the Bulletin was mimeographed, there was no official information to indicate that any former member of the Forest Service had lost his life when the transport Tuscania, carrying a portion of the 20th Engineers and other American troops, was torpedoed by a German submarine. On February 15 the War Department issued an official list of eighty-two names of those known to have perished. Taking into consideration those known to have been saved, there still remain 182 soldiers and members of the crew unaccounted for. It is not believed, however, that all of these went down with the ship.

Woodsmen Needed to Get Out Airplane Spruce

The Aviation Section of the Signal Corps has asked the Forest Service to assist in giving publicity to the need for lumberjacks and logging railroad workers for the regiments of woodsmen that are being organized to get out airplane spruce. The work will be in Oregon and Washington, and the men will be organized into aviation squadrons on a regular military basis. Some will be sent to the new cut-up mill built by the Government, but the majority will go to various lumber camps, where they will receive from the lumber companies, in addition to their Government pay, enough money to make their wages equal to those paid civilian lumbermen in the region. They will work, however, entirely under their own officers.

There will be opportunities for promotion, both to non-commissioned and commissioned grades. Applicants within the draft age may be inducted through their local draft board for this special work. Those outside the draft age may enlist at any recruiting office, and will be provided transportation to the concentration quarters at Vancouver Barracks, Portland, Oregon.

Washington Office Notes

Thrift and war savings stamps are selling at a great rate among members of the Washington office. From January 24, when they were put on sale, to February 16, approximately $800 worth have been disposed of. One lady bought twenty war saving stamps ($82.60) at a single clip. She had the right spirit (and also the cash), and so had the man who a few days ago put down $165.20 for forty stamps. It is no better spirit, however, than is shown by the member of the Service who, with no spare money, buys a single thrift stamp every pay day.

Colonel Graves has joined the ranks of civilians and is now back at his desk in charge of the Service. By direction of the President, he has been honorably discharged under his commission of Lieutenant Colonel, Engineers, National Army only; and as Major, Engineer Reserve Corps, has been relieved from assignment to the 10th Engineers. As a reserve officer he may, of course, be called upon at any time in the future, should his services again be needed.

Rolf Thelen is back from a trip to Dayton, O., where he attended to some matters relating to airplane propellers. Dayton is a busy place these days, says Mr. Thelen, what with the big airplane factories and the Wilbur Wright field where many of our fliers are to be trained this summer.

Ralph S. Bryant is going over to the Emergency Fleet Corporation for a month to assist them in getting a line on the supply of ship timbers in the northeastern States.

Earle H. Clapp left for Madison on February 16 for a ten day inspection of the war work at the Laboratory.

Raphael Zon has been appointed a member of the Executive Committee of the Division of Agriculture and Forestry in the Natural Research Council. Mr. Zon and Dr. I. W. Bailey, of Harvard, will represent the forestry interests of the country.

Canada wants to know how we are carrying on the wood fuel campaign, and at the invitation of the Canadian Forestry Association, Austin F. Hawes told about what we are doing along that line at the Association's annual meeting in Montreal, on February 7.

To tell the Russian people what the National Forests mean to the people of the United States, Colonel Graves has undertaken an article which will be translated into Russian and distributed in the new democracy. The article is being prepared at the request of the Committee on Public Information, which is striving to acquaint the people of Russia with American ideals and methods of Government.

Colonel Graves gave a talk before members of the Department of Agriculture in Woodward and Lothrop's auditorium on the afternoon of February 13, concerning his experiences in France. On the evening of February 14 he talked to the Washington Section of the Society of American Foresters about the work of the Forest Regiments.

Income Tax Returns

It may be well to remind every one that the time for making income tax returns is growing short. The law requires all single persons whose incomes are $1,000 or more per annum, and all married persons or heads of families whose incomes are $2,000 or more per annum, to file a return of their net incomes on or before March 1, 1918. Returns should be made to the local Collector of Internal Revenue on special forms provided for the purpose. Members of the Washington office may obtain their forms from Accounts; field officers should apply to their local Collector.

We venture the hope that the great majority of Service members are subject to the tax: first, because it is agreeable to have that much income; second, because the money obtained by means of the tax will help win the war.

Forest Service Helps in Sugar Production Campaign

More sugar cane and beets will have to be raised, more maple sugar produced, and additional enthusiasm instilled into the bees if we are to have sweetening in our coffee next year. As a means of forestalling sweetless days, the Forest Service and the Bureaus of Animal Industry and Entomology, in cooperation, have prepared a special publication telling how the production of natural sugar may be increased. This will be distributed by the States Relation Service through the county agents. It should be of special interest to sugar cane and beet growers and to owners of sugar maple orchards and apiaries.

District Offices, Attention!

In this issue of the Bulletin we print (or rather mimeograph) an editorial by Smith Riley. We mention it here because it is the first contribution from a district officer outside of Washington, and we are hoping that the lead will be followed by other district office men.

Come to think of it, district offices are the very places from which one would expect interesting matter to emanate. They are directly in touch with the entire field of Forest administration, and they have their own individual viewpoints as to how various National Forest problems ought to be handled. It is only natural, therefore, to look to them for live material.

Possibly the district offices hesitate to send in original contributions because they think that the Bulletin is primarily a news sheet. It does aim to give the news, but its purpose is also to serve as a medium for the exchange of ideas--ideas relating to Service work and to other matters that are of interest to Service members. These may be grave ideas or gay ideas; it doesn't matter. The thing is to give them expression. And the form of expression doesn't matter, either; it may be prose, or rhyme, or even (possibly) free verse.

We rather think that we shall receive some decidedly worthwhile contributions from the various Forests as soon as the purpose of the Bulletin is fully understood. We shall make it our own special business to see that the Washington office comes across with as nearly as possible its fair share of material. We leave it up to the Districts to do their part toward making the Bulletin a success.

THE EDITORS.

(From the New York Tribune)

OUR PILGRIMS

By Ellis Parker Butler

Of the Vigilantes

For three centuries they have been coming, our pilgrims. First from a royalist England, religiously intolerant, to land on Plymouth soil; then from landlord-ridden Ireland; from Kaiser-cursed Germany; from Russia of the Czar and Siberian slavery; from tyrant-infested Balkans; from the whole of aristocrat-infested Europe. In little ships and great ships, their faces turned hopefully westward, the numberless pilgrims came, of many tongues, disunited, singly and in pitiful little groups.

Today our pilgrims are going back. Side by side, shoulder to shoulder, in united companies, in one uniform of freedom, one and all Americans and one and all American men, thousands, hundreds of thousands of our pilgrims are returning to Europe, heads up and eyes fearless, all chanting the same song, all marching under the one flag.

The like the world has never seen. This is the true product of the melting pot. For well-nigh three hundred years they came silently and separate from ten thousand towns and cities; today, welded together inseparably, they go back, carrying the holy grail of democracy they came to America to seek.

Pilgrims? They came as pilgrims seeking; they return as crusaders bestowing. Democracy they sought; democracy they found; democracy they will bestow!

Forest Products Laboratory

The Laboratory is collecting large quantities of several species of wood to be tested for use in airplanes. Various lumber associations have donated a carload each of white pine, cypress, gum, Norway pine, hard maple, and redwood, and a half a carload each of red fir and sugar pine.

An experimental wing veneer spar has been made in the timber testing laboratory by steaming waterproof veneer in channels, placing the forms back to back, and gluing on gum flanges. Poor gluing of the flanges caused the timber to fail in the glue joint test, but the work shows that wing beams can be made of bent veneer. Several more beams are being made for further tests.

H. E. Surface is assisting the Federal Trade Commission in obtaining certain information regarding the price and conditions of sale of newsprint paper. The work is in connection with the case of U. S. v. Meade et al.

District 2

A series of illustrated lectures on National Forest grazing and its relation to the war will be given on the Forests in Colorado during the next ten weeks. The District office lantern and set of slides will be routed, and from one to four lectures will be given by the Supervisors at various points on their respective Forests. The Director of the Extension Service of the Colorado Agricultural College has promised the cooperation of his department. Where possible, specialists from the Extension Service will be present to discuss matters of food conservation and livestock business.

A new form of public service has come to light on the Shoshone. Last summer at various times a number of berry pickers visited a raspberry patch on Timber Creek. Some of them took along their jars and sugar, and Ranger and Mrs. Thomas allowed them to use the ranger station for a couple of days, so that the fruit could be preserved as it was gathered. Not everybody would have been so accommodating.

After thorough investigation, it is believed that the fire which destroyed the seed extracting plant on the Arapaho Forest, January 23, was caused by the overheating of dust accumulated in the vicinity of the furnace. The furnace fire had been banked at noon, as usual, and the forest officers were at lunch when smoke at the rear of the furnace room was discovered by men leaving a nearby sawmill. Although the forest officers were immediately notified, the entire plant was in flames before they reached it. Twenty-five minutes later the three buildings and outhouses were in ashes. The total loss has been placed at $4,863, divided as follows: buildings and equipment, $1,425; tools and accessories, $229; 2,813 bushels of cones, $1,330; and 1,280 pounds of seed, $1,879.

District 3

Duplication of work in stocking streams with fish has occurred in the past through lack of coordination between State Game Wardens, various private agencies, and the Forest Service. To prevent this duplication, the State Game Wardens of Arizona and New Mexico have been requested to submit lists of the streams which they propose to stock this season, giving the species and number to be

planted. Supervisors and rangers will help this movement by ascertaining the waters that are to be stocked by private agencies and game protective associations.

Free use of dead wood for fuel has been granted the residents of Flagstaff. This brings the policy for the Coconino in line with that adopted on the Santa Fe and Carson where the use of green timber is prohibited under free use, but dead wood may be taken without permits by residents of Santa Fe and Taos. Flagstaff is favorably situated for extensive use of wood fuel, and it is hoped that this privilege will not lead to abuses, such as the sale of wood obtained under free use, or its use for commercial purposes. These abuses were the cause of withdrawal of free use privileges to Flagstaff residents two years ago.

District 4

Because of the shortage of funds and the inability of the Washington Office to furnish any more free yarn, the organization in District 4 is knitting sweaters and wristlets for the Red Cross. The ladies are also spending one evening each week in the rooms of the local Red Cross Society making gauze bandages. Another shipment of sweaters is being made to Washington this week. This makes a total of 178 sweaters and 29 wristlets that have gone from District 4 to Washington for the 10th and 20th Engineers.

District 4's War Gift Association is beginning to show results. About two months and a half ago, some eighty members of the District Office voluntarily pledged themselves to give one per cent of each salary check during the period of the war, this amount to be expended on the various activities connected with providing recreation and necessities to our soldiers. $291.68 has been paid into the Association treasury to date, and $233.21 paid out.

District 5

The plans for the State-wide fire prevention campaign are taking foremost place in the District Office activities. Forest Supervisor Hammatt of the Shasta has been called to take charge of the campaign. He will supervise and coordinate the legal, mechanical, and educational projects. Assisting him are C. S. Brothers, C. L. Hill, and L. H. Whiteman. Other members of the force will be assigned to this work as the campaign gets under way. At the last meeting of the Forest Industries Committee, representing the organizations in the State interested in fire prevention, it was decided that the Committee as a whole would assume an advisory capacity in the fire prevention campaigns carried on by the various organizations. The Forest Service will give most of its attention to the counties within and bordering on the National Forests; the State Forester to the redwood belt; and the University of California to the grain regions of the State.

District 6

Captain F. E. Ames, who left the District office for the Engineer Officers' Training Camp, at Camp Lee, Va., writes that he has been assigned as captain of Company B., 7th Battalion, 20th Engineers. He is now at American University, Washington, D. C.

While on his vacation in the East, Forest Examiner W. B. Osborne, Jr., stopped off at Washington for a few days to set up and demonstrate in the Forester's Office the improved Osborne fire-finder, of which he is the inventor. This instrument has been tried out by lookout men in District 6 and its efficiency clearly demonstrated. It is very probable the Osborne fire-finder will become standard equipment for lookout use on many National Forests where fire lookouts are maintained.

Robert Craig, Jr., formerly engaged in timber-survey work in District 6 and more recently Deputy Forest Supervisor on the Wenatchee, is now professor of forestry at the New York State Ranger School, at Wanakena, N. Y. This school is maintained as part of the New York State College of Forestry, of Syracuse University.

Forest Examiner A. J. Jaenicke, of the District Office, has been detailed to give a series of lectures on Wood Technology and Structure to the men in training for inspection work in the Spruce Production Division of the Signal Corps, at Vancouver, Washington.

Forest Examiner T. J. Starker has accepted a position as inspector of dry kilns, with headquarters at Madison, Wisconsin, and leaves for his new work about March 4.

In cooperation with the Portland Library, Forest Ranger Albert Wiesendanger is giving an illustrated lecture on "The Work of a Forest Ranger," at the fifteen branch libraries of the city. The object of the lectures is to give the public a better understanding of our work and to seek their cooperation in preventing forest fires.

Mr. Jackson gave two lectures on "Government Forest Work in Washington," at the Washington State Normal School, at Ellensburg, February 6 and 7. One was before the faculty and students of the Normal School and the other before 350 grade-school pupils and their instructors.

T. W. Norcross, Assistant Chief Engineer, spent several days of this week in Portland, inspecting District 6 road plans and in conference with District Forester George H. Cecil and District Engineer L. I. Hewes.

The report of the Wind River Experiment Station for December shows that the rainfall for that month was 43.22 inches. This is nearly twice a normal precipitation for December.

The Eagle Creek Camp Grounds have suffered more or less from the recent high water. The foot bridge was washed away and a number of slides along the Eagle Creek trail caused various other minor depredations. The "beaver tree" was carried away. The damage is partly offset by the large amount of driftwood brought down the canyon and deposited on the main camp grounds, which will be available for campers' use next season. This will be a real benefit, as the supply of firewood at the grounds had been very nearly used up. It is very possible that floods will keep a supply of firewood on the grounds. The log jam was not moved and served to prevent a serious washout on the camp grounds, a part of which was covered with several feet of water and had the appearance of a small lake. Trail repairs and improvements to the camp grounds will probably be made in April.

U S. — Agri.,

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

February 21, 1918.

Landscape Engineering in the National Forests

The development of the National Forests has reached a stage where we need to give increasing attention to landscape engineering. How should a summer camp site be laid out to make the most of the natural beauties of the location? What principle should be followed in running a scenic trail to ensure the best views for the traveler? How can ranger stations be made most attractive as dwelling places and what type of design will harmonize best with their surroundings?

Questions like these are coming up all the time, and to handle them in the right way we need expert guidance. Last spring, therefore, the Service asked Dr. Frank A. Waugh, an eminent landscape engineer of Amherst, Mass., to provide it with a basis for correct landscape engineering practice in the National Forests. Dr. Waugh was appointed a collaborator, and during the summer visited a number of Forests where recreational use is especially important. As a result of his trip, Dr. Waugh has prepared a report setting forth some simple principles of landscape engineering applicable to the layout of summer camp sites, to trail location, and to ranger station dwellings and grounds. It is hoped to publish this report within the next few months as a guide for Forest officers in these lines of work.

Dr. Waugh's study gives us the basis for extending the principles of landscape engineering to all of our improvement work as the need arises. After the war it is likely that this will call for the regular employment of a landscape engineer in Washington, and probably also one in each of the districts particularly concerned with recreation. For the trained landscape specialist the opportunities for recreational development in the Forests are fascinating and almost unlimited, and the work of Dr. Waugh marks the first step toward utilizing these opportunities to the greatest possible extent.

E. A. SHERMAN.

And Now for Socks

Since February 1 there has been turned over to the 20th Engineers 720 sweaters, 202 pairs of wristlets, 88 helmets, 35 mufflers, and 10 trench caps. There are on hand about 50 pairs of socks which will be mailed immediately to the 10th, in France.

The emergency need of sweaters for the 20th is now past. There is no longer any danger that the men will have to do without sweaters when they need them most, for the Red Cross can supply them. Naturally, we would rather that the garments came from us than from others; but there is at present greater need for socks. "In my opinion," said one of the Red Cross officials here, "more lives can be saved now by providing socks than sweaters, but we have practically no socks."

The weather in Washington has become warm and spring-like, and there will be little more cold this season. The question is often asked whether the Red Cross plans to keep on furnishing sweaters. No change of policy is expected, as the garments will certainly be needed by the troops in crossing, and it is believed that they will be useful on the other side, particularly in the

case of the Forest Regiments. But in another month or six weeks at the outside they will have been fully equipped, and most if not all will have left the camp here. After they have gone, we shall have no way of turning sweaters in for their use. But socks can easily be sent abroad.

Further, we are soon going to be able to supply free wool again--but this will be sock wool. The Lumber and Forest Regiments Relief Committee has just appropriated another $500, for us to buy sock wool with. This was done partly because, through force of circumstance, the lion's share of the garments has hitherto fallen to the 20th. The 10th, we know, wants socks. So we are now going to work as hard as we can, to supply them. The liberality of the Committee in providing funds means that all Forest Service people who wish to knit socks can have wool.

It is, of course, a good deal harder to make socks than sweaters, and some knitters may not want to tackle them. On the other hand, those with any knack for such work and willingness to follow instructions and use care will probably learn without very much trouble.

There are knitting machines with which socks can be turned out much faster than is possible if the work is all done by hand. The Washington office has just received one of these machines, which was ordered and paid for two months ago. It cost $20.75. Mrs. Will C. Barnes is learning to operate it--and Mr. Barnes, who is helping in the struggle, says it is something of a job! District 1 has bought one of these machines, through the Washington office, but probably has not yet received it, as the factory is far behind on orders. The Madison Laboratory has ordered a machine of a different make. The best results, it is believed, can be obtained by having the tops knit by hand (about 2½ inches). The machine can complete the work, if operated by some one who has learned how to use it, in half an hour or less. But greenhorns may queer the machine; its operation must be confined to those who have acquired the necessary skill.

A report on the total number of garments received to date from each District will be made next week if possible.

High Prices for Furs

Forest officers who do a little trapping during the winter will be interested in knowing that at the recent sale at St. Louis of the government pelts taken by hunters of the Biological Survey the following unusually high prices were received for coyote pelts: 194 pelts at $8.75 each, 160 at $10 each, and 115 at $11.75 each. Except as souvenirs, wolf pelts bring comparatively little money compared with coyote and bear pelts. This is accounted for by the Biological Survey as due to the inferiority of wolf fur.

Cooperation with the Four Minute Men

Arrangements have been made with the Director of the Division of Four Minute Men to furnish the Forest Service with a sufficient supply of the bulletins issued to the speakers of the organization to allow copies to be sent to each Supervisor. The first supply received was inadequate and consequently the bulletins have not been sent to Supervisors in the larger cities where it seems certain that the Four Minute Men organization has already been formed. These men will be supplied as soon as additional copies of the bulletins are obtained.

The Director will send lists of Forest Supervisors in each State to the various State chairmen and suggest that the chairmen get in touch with the Supervisors with the idea of securing

their aid in extending the Four Minute Men organization in their localities. This will probably result in the appointment of Supervisors as local chairmen in towns where the organization has not yet been perfected. It will also give them a chance to make suggestions about carrying on the work in towns in or near their Forests.

It was found that the Director already had considered the advisability of starting a campaign against fire as a part of the Four Minute Men program, and was open to suggestions. It is probable that in the spring or early summer the whole Four Minute Men organization will be used to preach the doctrine of fire prevention, including forest fires. This, it is hoped, will "help some."

Lest We Forget to do Our Part

"They say, who have come back from 'Over There,' that at night the troubled earth between the lines is carpeted with pain. They say that Death rides whistling in every wind, and that the very mists are charged with awful torment. They say that of all things spent and squandered there, young human life is held least dear. It is not the pleasantest prospect for those of us who can yet feel upon their lips the pressure of our mothers' goodby kiss. * * * But, please God, our love of life is not so prized as our love of right. In this renaissance of our country's valor, we who will edge the wedge of her assault make acceptance of its hazards. For us, the steel-swept trench, the stiffening cold--weariness, hardship, worse. For you, for whom we go--you millions safe at home--what for you? * * * We shall need food. We shall need care. We shall need clothes for our bodies and weapons for our hands. We shall need terribly and without failure, supplies and equipment in a stream that is constant and never-ending. From you, who are our resource and reliance, who are the heart and hope of that humanity for which we smite and strive, must come these things."

(Signed) Citizen Soldier, No. 258.

In Gulf Coast Lumberman.

Not the Man

In making the annual lumber census the Washington office has received the following reply enclosed in an envelope bearing the postmark of a small town in the central Appalachian Mountains:

"Please notice
feb the 18 1918

Deare Sir I will Drap a fewe lines let you knawed that I haint the man I haint gat no Sawmill I haint no dealer in lumber."

National Forest Wood Prevents Fuel Shortage

The White Mountain Forest has furnished practically their entire winter's supply of fuel to the people of Bartlett, N. H. Sixty-two families bought a total of 565 cords of wood at the price of $1 per cord for stumpage. Cutting, which was done under the supervision of the Forest Service, was carried out in such a way as to improve the condition of the forest. Practically all of this wood was cut by the individual purchasers in their spare time, so that the total cost to the consumer, including stumpage and hauling, was but $2.50 per cord.

As a result of this action Bartlett escaped the fuel shortage which has been so acute in many other towns, nor has it called for any of the coal which has been so much needed by other less fortunately situated communities.

Washington Office Notes

Mr. Graves left February 24 for an extensive trip West, going first to the Madison Laboratory. While away he expects to visit all the District Offices.

D. D. Bronson has begun a swing around the Districts to take up the annual allotment estimates.

From all accounts the meeting of foresters held in New Orleans about the middle of January, under the auspices of the Louisiana Conservation Commission, was the most successful and satisfactory ever held in the South. The men present cut out frills and got down to brass tacks. The development of cut-over pine lands received first attention, especially the reforestation and fire-protection problems. The fuel wood situation was also discussed. The meeting was attended by the State foresters of Texas and Louisiana, the forester of the Great Southern Lumber Company, the Conservation Commissioner of Louisiana, and prominent lumbermen. J. G. Peters, W. R. Mattoon, and Austin Cary represented the Forest Service.

On the way back Mr. Peters stopped at Jackson, Miss., to assist interested individuals in drawing up a forestry law which has since been introduced into the Mississippi Legislature. This law is patterned after the Texas law, except that a separate forestry board is provided for.

As a result of the taking over of the railroads by the Government, several conferences have been held by members of the Washington Office with representatives of the Interstate Commerce Commission. The Commission was informed of the data already obtained by the Forest Service regarding the sources of supply of ties, timbers, and other forest products used by the railroads, the best methods of treating and using such products, and of the organization available for securing other data if needed.

The Twentieth Engineers has completed recruiting and no additional men are needed. It is planned to refer the inquiries that are still being received from men desiring to enlist to the Signal Corps, which needs about three thousand lumberjacks for its spruce production work. All prospective applicants are being advised to address the recruiting section of the Air Personnel Department, Signal Corps, 136 K Street, N. E., Washington, D. C.

Higher Government Salaries Proposed

At least five bills providing for increased salaries for Government employees have been introduced into Congress this session, and one bill has already been favorably reported to the House. The rates of increase vary in the different measures. The Keating Bill, which appears to have attracted the most attention up to the present time, provides for the following increases for all Government civilian employees: An additional 30 per cent per annum for all employees receiving $900 or less; an additional 25 per cent for all receiving $1,200 or less and more than $900; 15 per cent for those receiving from $1,200 to $1,500; 10 per cent for those receiving from $1,500 to $2,000; and 5 per cent for those receiving from $2,000 to $2,500.

Oregon Supreme Court Restores State Lands

The Supreme Court of the State of Oregon has handed down decisions in six suits, involving about 23,000 acres of State land purchased through entrymen in fraud upon the State and used by Hyde and others as base for attempted selection of public land under the Forest Lieu Act.

It appears that in 1908 F. A. Hyde, with the assistance of others, purchased about 47,000 acres of land from the State of Oregon. The laws of that State provided that its lands should be sold for $1.25 an acre in lots of not to exceed 320 acres, to residents of the State for their own use. Hyde and his agents had people apply to purchase State land and furnished them the money to pay the State, the land being immediately sold to Hyde. The original purchaser usually received $1 for his rights. Scrip was sold by Hyde and his associates to a great many different people. Some of the selections were approved and patents issued. In other cases the selections were approved, but the approval revoked before the issuance of patent. In the majority of cases, however, the selections have been pending nearly twenty years without action having been taken.

This delay has proven fortunate to the public interest. As to the areas which were used as base for approved selections, even where the approval was only temporary, the Court held that the title to the base lands passed to the Government and that the Court was without jurisdiction to determine the validity of title unless the parties in interest participated in the suit. There being no way to compel the Government to appear in the suit, the Court was therefore without jurisdiction, and, as to about 10,000 acres used as base for approved selections, the Court dismissed the case without prejudice, very strongly intimating, however, that should the Government at any time see fit to appear in Court it would hold the original transfers from the State to be fraudulent and void.

As to the lands used as base for selections which were not approved, the Court held that since title had not been accepted by the Government, the Government was therefore not an interested party, and therefore the Court's jurisdiction was complete. As to such lands, the Court held that the original transfers were secured by fraud, and were therefore void, and ordered the deeds to be canceled. Of course, as to the selections based upon the lands involved in the canceled deeds, there is nothing left now for the Land Office to do but to reject such selections, since under a decree of the State Supreme Court all base has been adjudged non-existent, that is, the title offered the United States is worthless.

Upon informal inquiry at the Land Office, it is learned also that as to the selections which were approved and approval later rejected, the Land Office feels that this decision gives them ample grounds on which to reject such selections, holding that the title deeds offered to the Government are grounded in fraud, void, and worthless.

Legislation

The Senate Public Lands Committee held a hearing February 20 covering certain features of the bill creating the Grand Canyon National Park. Certain amendments were proposed by Senator Ashurst, which were objected to by the Park Service. It is hoped, however, to arrive at a satisfactory basis for compromise, and that the bill will be reported out in the near future.

Senator Chamberlain of Oregon has introduced a bill adding certain lands to the Minam National Forest. These lands are heavily timbered and control the outlet to about 200,000,000 feet of timber inside the Forest. The local public desires them for the reason that they practically control a stock driveway necessary to reach the National Forest range.

The urgent deficiency bill, carrying an item of $775,000 to cover the unusual expenditures of the Forest Service for fighting forest fires, has passed the House and gone to the Senate.

Congressman Raker, of California, and Senator Henderson, of Nevada, have introduced identical measures providing for the issuance of patent to the Overland Trust and Railroad Company for a tract of about 40 acres of land in the Tahoe National Forest, near Tahoe Lake, said to be very valuable for recreational purposes. The Forest Service will oppose the measure. A similar bill was introduced last session which provided for the transfer of two additional tracts of land which fronted on Lake Tahoe. The new measure does not include any shore line.

More "Breezy Government Reports"

Several sheep men from other States used, or tried to use, range within one of the Montana Forests last year. The actions of one is commented on in the following terse, if not entirely official, language.

"The three Utah owners came late, fiddled around a little while and beat it."

On the Bitterroot Forest last summer two thousand sheep were burned to death in a forest fire. Forest officers state that had the herder kept his head and not deserted his flock the sheep would have doubtless been saved, for the fires stopped on top of the divide within a thousand feet of where the animals were caught.

District 5

Bonds have been executed on behalf of the California Peach Growers' Association for the purchase of 26 million feet of timber on the Hog Ranch chance in the Stanislaus. The yellow pine stumpage was purchased at $2.50 per M, sugar pine at $3.25 per M, incense cedar at $1 per M, and white fir at $.50 per M.

Arrangements are being made by the Forest Service to secure the posting of roads in the northern counties of the State by the California State Automobile Association. The Association maintains a sign-posting crew equipped with motor trucks and has agreed to post Forest Service fire-warning signs at a nominal rate per sign.

The State chairman of the "Four Minute Men" organization has offered to devote some of the time of his organization to speaking on fire subjects.

From eight to twelve rangers will be organized into an arson squad and trained in the detection of incendiaries on the Forests. The plan is to send members of the squad throughout the District, coaching Forest officers in this line of work. Among those who have consented to assist in the training of the squad are Chief of Police Vollmer of Berkeley and Mr. J. W. Stevens, head of the Fire Prevention Bureau in San Francisco.

District 6

A shipment of 47 sweaters and one pair of wristlets for the men of the Tenth and Twentieth Engineers was sent to Washington this week. The wristlets and 15 of the sweaters were knit by Portland women; the remainder were furnished by women of the

Siskiyou, Crater, Fremont, Chelan, Whitman, Deschutes, Tongass, Snoqualmie, Wallowa, Oregon, and Santiam Forests, and Wind River Experiment Station.

At the request of the owner of a large farm in the Tualatin Valley for advice as to methods of handling his woodlot, Mr. Munger went to Forest Grove, Oregon, and made an inspection of the woodlot. The lot consists of 80 acres of fine second-growth timber, chiefly Douglas fir. The farmer requires 100 cords of fuel a year for use in his prune dryer and for domestic use. The ordinary practice of the valley is to strip an acre or two each year for fuel, giving no consideration to providing a sustained annual yield. It will be only a matter of a few years until the entire accessible woodland in the valley is stripped clear. According to Mr. Munger, if systematic thinnings are made, the owner of the woodlot under consideration can secure all wood needed for current farm uses from trees which would otherwise be killed by suppression and whose removal will leave the forest in a better condition for rapid growth.

Carl Miller, who has been engaged in land classification work in Lands for the past four years, has resigned from the Service to take up private work in X-ray photography.

Forest Ranger Albert Weisendanger, who has been in charge of the Eagle Creek camp grounds for several summers, has resigned from the Forest Service to become office manager of the Mallory Hotel, Portland.

W. L. Bishop, who has served as a clerk in the Office of Accounts, Portland, for the last six years, has resigned to become secretary for the Pacific Chiropractic College.

Stanley R. Augspurger gave his life for his country in the Tuscania disaster. During last year he was employed in District 6 as a field assistant in timber surveys, and later at the Wind River Experiment Station. His home was in Dayton, Ohio. Of the two other District 6 men on the Tuscania, E. E. Harpham, formerly a scaler on the Olympic, was reported rescued and Roy Muncaster, formerly a ranger on the Olympic, was among the missing at last reports.

H. E. Surface, of the Madison Laboratory, arrived in the District this week. While here he will spend some time going over the proposed large pulp sale on the Stillagaumish watershed, on the Snoqualmie.

Supervisor Sylvester, of the Wenatchee, has forwarded to the District Office a sweater knit by himself. This sweater has been posted on the bulletin board, that it may serve as an inspiration to other men of the Service to do likewise. It is believed Mr. Sylvester has the distinction of being the first man in the Forest Service to complete a sweater by his own handiwork. Forest Examiner Kan Smith is also engaged in the construction of a sweater.

(The Washington Office must challenge Mr. Sylvester's claim to distinction on this ground. A. H. Pierson recently finished his second sweater, the first having been turned in a month or more ago.)

U S—Agri Dept of — For

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

February 28, 1918.

Getting Together

The districts often feel that the Washington office is in a chronic state of being three jumps behind the game, and the Washington office at times is of the opinion that the districts are headstrong young things, to be trusted only within shouting distance when a strong string is attached. The promptness of action ordinarily possible in the districts creates a feeling of resentment against delay in Washington. This is not unnatural, for the districts are on the firing line, so to speak, and must bear the full brunt of the bad effects resulting from delay in handling business, besides having to meet the criticism of the public when matters are held up. The result is a temptation to act upon matters of policy without first submitting them to Washington for consideration. A natural corollary to this is the accusation sometimes made against the districts of "pernicious activity."

There is some justification for both attitudes. This is illustrated by the often-observed change of front in men who go from Washington to the field or from the field to Washington. Part of this change, of course, is nothing more than the manifestation of the tendency, inherent in most of us, to be swayed by immediate influences--a thing to be avoided. Nevertheless, it would seem that where there is so much smoke there must be some fire. Assuming that there is, we are faced with the necessity for closer cooperation between Washington and the districts. The latter should not carry persistency to the point of obstinacy, nor should the Washington office permit all matters requiring its attention to suffer from the same disease of deliberation that afflicts certain classes of business.

I once came across an intoxicated man who had been thrown off a train for creating a disturbance. He was taking himself to task for the actions that had got him into his predicament. So thoroughly did he separate those moods and turns of personality responsible for his various acts that one might have thought he was carrying on a conversation with half a dozen persons. It was a fine exhibition of self analysis. Could not a good deal of whatever misunderstanding exists between Washington and the districts be cleared up if each of us--members of the district offices and members of the Washington office--followed his example? Let each look inward and ask himself whether his attitude or his actions may not in some degree be responsible for present conditions. Let him also ask himself what he is doing to eliminate misunderstanding and help the whole machine to run smoothly. If he is a district man he should remember that the administration of the National Forests is still in a formative stage, and that changes in policy require careful consideration. He should also remember that the Washington office must refer many matters to the Secretary, and that this takes time. If he is a member of the Washington iffice, he should bear in mind that much of the success which has attended National Forest administration is due to the businesslike way in which the work has been handled, and that any letting down in this respect is bound to have a bad result. He should realize the need for prompt decision in matters which do not require action by the Secretary, and for as much speed as possible in the case of those that do.

If each of us takes it upon himself to see that he does his part in bringing about better teamwork between Washington and the field, it will not be long before criticism from either end will cease. The Weekly Bulletin should serve as a meeting ground where many problems can be threshed out. Both the districts and the Washington office ought by all means to take advantage of this opportunity to keep in touch with one another.

SMITH RILEY.

A Word from Capt. Satterlee

In the Washington office there is a veteran of the Civil War who knows by abundant experience all the trials and hardships of a soldier's life. He has bivouacked in the snow, stood guard in zero weather, walked a new pair of shoes through in eight days of campaigning. So he is naturally interested in the boys out at the American University training camp--and has proved it in a very practical way.

He is interested in the men of the Forest Service, too. When the fires broke loose in District 1 in 1910 and the word reached Washington that there were fire-fighters to be cared for in hospital, and others to be buried, a hasty subscription was taken up. The old soldier was one of the most liberal contributors to the fund.

Last June the Department of Agriculture undertook to raise money for a Red Cross ambulance. "Why doesn't the Forest Service provide an ambulance of its own?", he asked. "I will give twenty dollars if it does." So the ball was set rolling. He was not allowed to give so much, since even what he did give was more than his share and the fund was oversubscribed; but he stood ready to add more if it was needed, and he gave the first push.

Last fall the knitting work began. One day the veteran walked into the room where the garments were being received and laid down a bundle. It contained twelve pairs of heavy woolen gloves. Within a few hours they were on the hands of the men on guard duty.

Nor was this all. But to tell the whole story of the things that Capt. Satterlee has done would be unfair to him; for they were not done for publication. With the following contribution the case is different. We are all interested in seeing from another angle how Capt. Satterlee's thoughts are with our men on the other side.

"Assuming that our boys come home whole and reasonably sound, they will be the people who will be prepared to mark out a few lines for those of us who have not been 'over there.' They should and they will come back with a very greatly expanded vision. They will come back to us realizing, as we have not come to, the importance of timber as a factor in our domestic economy in peace as in war. We shall get to planting the waste places and learn what we have as yet understood all too imperfectly, how to utilize our rockiest, poorest lands.

"The writer advised a friend 30 years ago to plant spruce, red cedar, and several of the pines on a bluffy corner of his farm underlaid with limestone and shale, with a sprinkling of flint intermingled. Trees 60 feet high are plentiful in that grove, and the best specimens of cedar will make fence posts of marketable size. The farm is a beauty, every trace of ugliness hidden by that grove. France, Germany, all Europe is dotted with similar exhibits, and our boys are cutting timber from groves planted by men."

J. B. SATTERLEE.

Wood Fuel Work Closes in the South

With the start of the crop season, wood fuel work in the South is being wound up, with plans laid for starting it up again next fall. E. W. Munns and F. S. Baker have already returned to Washington, and George Lamb is expected back on March 7. The work in the North will probably end in a month. As fast as the men finish, they will be assigned to the work of locating black walnut, black locust, and other timbers specially needed by the Government.

The success in many places of municipal wood yards has brought up the matter of municipal forests, and this may be expected to receive a good deal of attention next year.

Lost on the Tuscania

It is now certain that at least two members of the Service lost their lives on the Tuscania. These were Sydney R. Augspurger and Roy Muncaster, both of District 6. Mr. Augspurger was a field assistant at the Wind River Experiment Station, and Mr. Muncaster a district ranger on the Olympic National Forest.

Legislation

No action was taken by the Senate during the past week on either the Agricultural Appropriation Bill or the Urgent Deficiency Bill. These will probably be brought up for discussion the coming week.

Congressman Timberlake, of Colorado, has introduced a bill providing for the establishment of a National Game Preserve to include a considerable part of the Colorado National Forest. The bill was introduced in response to an urgent local demand. The lines of the proposed reserve were determined upon after conference with the Forest Service.

Congressman Smith, of Idaho, has introduced a bill to grant five sections of land formerly in the Cache National Forest to the city of Pocatello for a municipal park and for the protection of its water supply. The lands were eliminated from the Cache Forest last October, but the proclamation provided for their withdrawal until March 5, 1919, in order to allow for their disposition by legislation as now proposed. They are not watershed lands in the ordinary sense, but city pipe lines cross them and several small reservoirs are located there.

Washington Office Notes

L. C. Everard, of the Editor's office, has gone to the Madison Laboratory for two months to do editorial work and to obtain an insight into investigative problems and methods.

While in New York the other day, Raphael Zon attended a meeting of the War Council of the Society of American Foresters. Present besides Mr. Zon were R. S. Kellogg, Secretary of the National Lumber Manufacturers' Association; Prof. J. W. Toumey of Yale; Prof. A. B. Recknagle, of Syracuse; Prof. I. W. Bailey, of Harvard; W. G. Howard, Assistant Superintendent of New York State Forests; Alfred Gaskill, State Forester of New Jersey; and J. E. Rothery. The plan of the War Council, as brought out at the meeting, is to get a line on the special abilities of each member of the profession as a means of aiding the Government wherever needed.

Do We Get You?

Some weeks ago the question was put up to the field force "Is the Weekly Bulletin Worth While?" It was then hinted, or perhaps more, that the answers received would find a place in the Bulletin.

We had to change the plan. The response was hearty, and valuable. Many ideas were furnished that will be of decided help in getting out the Bulletin. But as a rule these ideas are more important for us to think about than to pass along.

There are exceptions. Some letters or portions of letters will be taken up in another issue. The fact is, of course, that the Weekly Bulletin is, somewhat gropingly, trying to find its place. What it wants first of all is to do its utmost for the field man. But to do this the editors must know what the field man most wants. On that we need to be told. We can safely say "We get you" on many matters, through the replies already received; but on some other matters we need more.

One man wrote us that we ought to attend to business and not run around getting opinions, or words to that effect. But how can a business be properly attended to without studying what its customers want? Our circulation is all to deadheads. Since nobody cuts off his subscription because he does not like the Bulletin, the only way to find out whether our wares please is to get opinions.

On some points our readers appear to be practically of one mind; on others, of most divergent minds and contradictory views. All apparently want more war news, and all heard from are glad to have the Bulletin. We note without surprise that no one seems to hold that it can not be improved. As to the war news, we believe our readers probably overestimate the amount of such news which is available here in Washington. A good deal of our own Forest Service war work is along lines which can not be talked about, even among ourselves.

One letter has given us a tip that we shall use forthwith. Its writer supposed, because it seemed to take so long for the Bulletin to reach him, that the distribution is via the District offices. The real reason is that the Bulletin has been backdated. It was meant to cover news received up to Thursday noon, and has therefore borne in each case a Thursday date. The actual date of issue, however, is Monday or Tuesday, and news can usually be got in up to Saturday noon. Therefore, beginning with the next issue, the date will be advanced by four days. This date will more fairly represent the facts, and will, we hope, make the Bulletin seem less stale.

Emerson Hough on Sheep

Emerson Hough, the author, does not feel kindly toward sheep, as witness his words in the March number of "Forest and Stream": "I don't like the facial expression of a sheep, I don't like his moral character, I don't like the color of his hair, I don't like the way he smells."

These expressions of unfriendliness on the part of Mr. Hough toward our sources of mutton and wool are called forth by what he considers the pernicious practice of the Service in permitting sheep to graze on the Forests surrounding Yellowstone Park. This, he holds, means extermination of the Park elk. In connection with a statement by the Service that the total number of sheep grazed in the Forests in the vicinity of the Park--Absaroka, Beartooth, Gallatin, Madison, Shoshone, Targhee, and Teton--is 569,100, he says: "There are probably over a million in fact. No sheep man holds to his lease. The Forest Service does not know. Usually, it is said, twice as many sheep are run in as are paid for."

The fact that game refuges totaling more than 700,000 acres have been established in these Forests along the borders of the Park is, in Mr. Hough's opinion, without point. "Surround these refuges with sheep trails and no elk will ever go to them at all."

Public apathy in the matter is due, Mr. Hough thinks, to "the erroneous numbers credited to the elk herd in the Park." He is not impressed with the count of elk made by the Forest Service and the Biological Survey. The Survey, he says, tells him that the number is approximately 17,000/(the official figures are something over 19,000), but "I would wager my fortune that half that number would be nearer right."

It is doubtful, thinks Mr. Hough, whether sheep ought to be run in the Forests anyhow. "In more than one forest reserve sheep have ruined the watershed forests, stripped the hillsides so that floods have ripped them to bits, and cut the roots so long proclaimed to be the retaining influences of the down-bound floods gathered off the mountains." To which he adds: "Of these facts the Forest Service has for the most part remained blissfully ignorant, or at least tenaciously silent." And later on: "Take the sheep out of the Forests. Put them under wire. It must be done some day."

To come back to the immediate problem of the elk: "The present incumbents of the Forest Service ought to be thrown out at once. They are an intolerable menace."

To all of which silence is the best answer. It gives us the chance, however, to announce for an early issue of the Bulletin an editorial, long contemplated, on the game situation.

(From The New York Times)

THE MESSAGE OF THE FLAG

By Charles C. Jones

I can hear a song of rivers on the crowded roads of France -
   Hear Columbia's ode to sunset, Chattachoochee's hymn to dawn,
Rio Grande's, Androscoggin's, wonder ballads of romance,
   And Ohio and Missouri rolling deeply on and on;
And there's measured rhythm in it - all the swinging music beat
   Of the sweep of tawny waters where the Mississippi flows;
Do you hear them, Kaiser Wilhelm - do you hear those marching feet,
   Where in high wind-rippled beauty to the front Old Glory goes?

I can hear a song of cities where the roads of France go down -
   Croon of wharfmen from New Orleans; from Duluth the ore-chute's peal;
Kansas City, proud Chicago, Denver, Memphis, Frisco town;
   Hammer clang of young Seattle building ships of Pittsburgh steel,
And there's ringing magic in it - all the daring, sane and strong,
   Of the roaring diapason where New York's skyscrapers rise.
Do you hear it, Kaiser Wilhelm - do you hear that chorused song,
   Where in eager, sun-bright splendor at the fore old Glory flies?

I can hear a song of spaces where the roads of France are plain -
Purple deeps of desert twilight, forests looming green and tall,
Raw-scarred hillsides big with metals, dappled levels deep in grain,
Wind-racked mountains crowned with star-shine, and the crashing waterfall.
And there's call of bugles in it, wealth and power yet to spare
For the mill and mine and workshop, and the will that never sleeps.
Do you hear it, Kaiser Wilhelm - hear that thunder music there,
Where in striped and starry beauty overhead Old Glory leaps?

I can hear a song of triumph where the roads of France are trod
By the steady ranks in khaki, tramping down to war again -
"Of the people, by the people, for the people, under God"-
And it makes heroic fervor in ten million fighting men.
For there's David's clarion in it, and the fire of Lincoln's land,
And it lifts the gauge of conquest - O triumphant! - as it sings.
Do you hear it, Kaiser Wilhelm - do you wake and understand,
In the world's new birth of freedom, what it is Old Glory brings?

District 2

The Office of Grazing is placing special emphasis this year on the possibilities of double utilization of the ranges. Each Forest has been asked to study individual ranges with this in view. District 2 will take care of 14½ per cent more cattle and 13½ per cent more sheep in 1918 than provision was made for before the war. Some of these increases will depend upon the construction of certain range improvements. The district will probably find ways of still further increasing our present authorizations through more intensive application of improved methods, but it seems that very large increases must come from the study of the possibilities of double utilization.

The Supervisors and rangers are making definite and complete salting plans to be put into effect this season on every Forest in the District.

Mr. C. G. Bates, in charge of Investigation, will leave about March 1 for the Madison laboratory, where he will assist for an indefinite period in the work connected with the dry kilning of lumber and in the study of species and conditions of lumber used in shipbuilding.

One ranger each from the Washakie, White River, Holy Cross, Leadville, and Shoshone Forest will go to the Nebraska Forest about March 15 to assist in the spring planting work. These details will not only be a material help to the regular Forest force during its busy season, but will serve to give the rangers first hand experience in handling men and in planting work.

District 3

Though couched in the dialect of Arizona, the following is concise and clear:

> "I am ritting you in regard of the rod that
> com in to rattle snake canon that we put in for
> mining property and Geo. B--- has drove cattle
> over and have tromp the banks and have rolled
> rocks in the rod and it is all most impossible
> to git over the rod sence he drove the cattle
> over the rod and the must bee somthen don at wonce.
> yours very trueley
> F.J.P------ "

The Bureau of Fisheries has determined that an acre of water stocked with fish will produce more food than any equal area of land. (The Washington office regards this as a fish story). Very great progress was made last year in stocking empty and depleted waters, and this work will be carried on even more energetically the coming year. Every permanent water suitable for fish within the National Forests of District 3 should be stocked in the course of the next two years. Besides increasing the food supply, this will be a strong factor in game protection, since with good opportunities for fishing, more and more sportsmen will give up the gun for the rod.

Twenty-five members of the Service, including visiting Supervisors, gave a dinner Tuesday night at the Country Club to former District Forester Redington and former Forest Examiner Leopold.

The head of a female deer with horns, acquired by Ranger Rice of the Tusayan, is being sent to the Biological Survey.

The wireless equipment for the north side of the Grand Canyon has been received by the Supervisor at Kanab, Utah, and will be installed as soon as weather conditions permit. There is now every prospect that the system will be in working order by early summer.

District 4

Several settlers on the Boise Irrigation project have organized a cooperative sheep growers' association with a view to grazing their farm flocks in cooperative herds on the Payette National Forest during the summer months. The present members of the organization own 2,340 head of sheep, varying from 40 to 600 head apiece, and each has been granted a permit to graze the sheep on an allotment which has been set aside for the use of the association.

According to the constitution and by-laws of the association which have been submitted to the District Office with a request for official recognition, any project farmer who secures a permit to graze sheep upon the Payette Forest may become a member of the organization. The sheep are to be under the exclusive management and control of the Advisory Board during the grazing season. Operating expenses are to be borne on a pro rata basis, and must be paid before the sheep are delivered to the different owners in the fall.

This organization is the first fruit of a campaign being conducted on the Idaho Irrigation projects by the County Agricultural Agents advocating sheep husbandry on a cooperative basis. Such associations are being encouraged with the understanding that

the members of each organization will engage in the production of the same breed of sheep and that the sheep will be fed on the farms during the winter and grazed on the National Forest during the summer.

Supervisor Mattsson of the Fishlake Forest has transmitted a petition signed by 52 citizens of Wayne County, Utah, requesting the addition to the Fishlake Forest of approximately 27,200 acres of public land, the purpose being to prevent fires which now occur within the timbered areas of the land in question, to improve watershed conditions, and to prevent overgrazing by transient sheep.

District 6

An inventory of the Sitka-spruce stumpage in Oregon and Washington just completed by the Forest Service indicates that there is about 11 billion feet of standing spruce in these two States. The inventory was made for the use of the Spruce Production Division of the Signal Corps. The total estimated stand in Washington is 6,575,000,000 feet, and in Oregon 4,374,000,000 feet board measure. Most of this spruce is held under private ownership. The amount of accessible government stumpage in Oregon is so small as to be negligible. In Washington 600,000,000 feet is in the Quinault Indian Reservation and nearly 1,000,000,000 feet in the Olympic Forest. Only a very little of this, however, is near enough to transportation to be effective in the spruce-production campaign. In Alaska there is between 16 and 18 billion feet of Sitka spruce, but of this less than one billion feet is thought to be of suitable quality to yield airplane stock.

L. E. McDaniels attended a convention of the five stock associations of the Deschutes last week. At these meetings plans were laid to form a Central Oregon cattle and horse association, comprising the Forest Service and the stock associations of the Ochoco and Deschutes.

The Fort Rock Cattle and Horse Association, of the Deschutes, has subscribed $2 per head of stock belonging to members of the Association to assist in water development in the dry Paulina country. The plan is to dig wells and equip them with pumps and gasoline engines. The stockmen will furnish the equipment for pumping. Some of the lumbermen interested in timber in the region have expressed a willingness to cooperate in this work.

Mr. Cecil left for the Madison Laboratory on February 22, where he will meet Mr. Graves for a conference on the spruce situation in District 6.

U. S. - Agri. Dept. of - Forests

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

March 11, 1918.

The Game Situation

Much has been done by the Forest Service during the past few years toward insuring the protection of game animals in the National Forests and on the adjacent public lands. We are now cooperating in game protection with the ten Western States which contain practically all the remaining big game. The activities of Forest officers in their capacity of Deputy State Game Warden have given stability to the State Game laws and brought about a more wholesome and universal respect for them. Partly as a result of our attitude in game preservation, the legislatures of many Western States have enacted better laws for the conservation of wild life. Steps have also been taken by the States to establish adequate preserves or breeding grounds, with California leading. The Forest Service is not charged by Congress with the protection of game, and what it has done and is doing in this respect is the result wholly of a desire to help in the work of preventing the extinction of our wild life. For what has so far been accomplished, credit must also be given, of course, to other Federal bureaus and to various State game departments. They and the Service have worked together.

During the past two or three years the Service has made a special study of the elk. In 1916 a very satisfactory census was taken of the Jackson's Hole herd and also of the Sun River herd. Count of the Gardiner, West Gallatin, and Madison herd was made in the spring of 1917. On the basis of these counts there have been prepared working plans for the protection of the various herds which meet with the approval of the various Federal bureaus concerned with the care of wild life. Whenever possible, winter range has been set aside on the Forests, supplemented with supplies of hay to meet unusual emergencies resulting from severe weather.

Certain over-enthusiastic game "experts" have claimed that the elk are in imminent danger of extinction. It must be realized, of course, that the game has many enemies and, even under the best conditions, does well to hold its own. Just what the elk situation actually is may be seen from the present condition of the various elk herds. Taking these in the order of their importance, we first have the Jackson's Hole herd, south of the Yellowstone Park. Plans are already in effect providing this herd with winter range which, while it may not be fully adequate during very severe seasons, is all the range there is. Hay is being produced on the Government-owned ranch for feeding younger and weaker animals through the winter or during very severe storms. The matter of summer range, as in the case of all the other herds, is not an important one, since there is more than ample summer range available for double their numbers. The present arrangement and disposition of the game is under State authority, and we cannot be sure as to the outcome of our efforts to provide better environments for the animals. So far as anyone can see now, however, it is reasonable to expect this herd to increase rather than diminish in size during the next few years.

The northern or Yellowstone Park Herd is for convenience divided into three units: the Gardiner, the West Gallatin, and the Madison herd. The Gardiner herd spends practically the entire year within the boundaries of the Yellowstone Park, only leaving for short periods during the winter. Ordinarily this does not happen until after the close of the hunting season. Legal hunting, therefore, does not reduce this herd to any great extent. Illegal killing for teeth, however, was rather extensive up to two years ago. Since then the Forest Service and the National Park Service have given the matter special attention, with the result that less than 50 head of elk were killed illegally during each of

these years. Hay is being provided for this herd as rapidly as land can be brought into cultivation and money is at hand, and all available winter range is being reserved for the animals' use.

The West Gallatin herd, which summers within the Yellowstone Park on the drainage of the West Gallatin River and winters on the Gallatin Preserve and surrounding Forest lands, is not so favorably situated. While there is an abundance of summer and winter range, the elk are compelled by severe climatic conditions to leave the confines of the Park and Game Preserve before the close of the hunting season. The result is that great numbers fall a prey to the hunter's gun. The annual kill is greatly in excess of the annual increase, and adequate State legislation is the only thing that will prevent the extermination of the herd.

The Madison herd, which really consists of remnants of several small bands and totals less than 300 head, is located upon the drainage of the Madison River. About half of the animals may be found within the Park boundaries throughout the entire year. The remainder are scattered over a wide territory. While there is summer range in abundance for this herd, the winter conditions are far from favorable. The deep snowfall in the upper Madison basin is decidedly to its disadvantage. In an endeavor to find winter range for these animals, the Forest Service has set aside over 100,000 acres of the remaining available range on which all sheep grazing is prohibited and only a comparatively few cattle are allowed.

The Sun River herd on the Lewis and Clark Forest is rapidly increasing. Ample winter and summer range is being provided for the herd in its present numbers. When the carrying capacity of the present winter range is reached, steps will have to be taken to restrict the size of the herd.

Other small bands of elk are scattered throughout the National Forests. For these there is ample summer and winter range. With the adequate protection they are receiving, their numbers should increase.

J. W. NELSON.

War Work at the Madison Laboratory

The calls on the research organization in connection with the war uses of forest products, says E. H. Clapp, who is just back from a visit to Madison, have made it necessary to more than double the laboratory force. In spite of this, it is still impossible to meet the needs of the War Department, the Navy Department, and other Government agencies. Tentative estimates for next year's work indicate that an increase in present appropriations of at least $500,000 will be necessary to handle adequately the problems now definitely in sight. This will involve, among other things, practically a duplication of present laboratory space. The problem of obtaining qualified men for the Laboratory staff and of retaining them after they are found, Mr. Clapp adds, has proved very difficult.

Legislation

The Senate last week finished consideration of the Forest Service section of the Agricultural Appropriation Bill. The action of the Senate Committee in striking from the bill the provision for a mileage allowance for motor vehicles was agreed to. It is possible, however, that this provision will be restored in conference.

Captain Ringland Describes Air Raid

In a letter dated February 7, Captain Ringland, of the 10th Engineers, describes a Boche air raid on Paris:

"Did you read in the papers of the air raid in Paris last Wednesday, January 30? I was in it, and believe me, it was HELL! I had just returned from a trip to the Casual Depot, and remarked as I stepped out of the Gare d'Orsay (big railroad station in Paris): 'What a dandy night for a raid - full moon'.

But Paris hadn't been raided in a year, and was more or less unprepared. Shortly after I had gone to sleep a motor siren went screaming through the streets. Almost immediately following the siren came the hum of many motors - 60 of the Germans engaged by 30 of the French. It was, of course, an awe-inspiring sight, for the moon was full. For another thing, the French planes, seemingly for protection, carried lights on each wing, and in the center a powerful searchlight. What with continuous dropping of the bombs and the crash of anti-aircraft guns the city was in a tremendous uproar. The raid lasted well over two hours. I witnessed it all (like a silly ass) from the balcony of my room on the top floor of this hotel. For the most part I felt myself a witness of a duly scheduled and grand exhibition for which I had paid an admission fee. But I came to life tout de suite when a bomb dropped on a house two blocks from ours.

"Early the next morning I viewed the house. Although of stone, as are all houses here, it was gutted, and tons of debris had been thrown into the street. Several people were killed here. Then in the Place de la Concorde I saw the wreck of a French plane where it came down. It struck a huge ornamental lamp post, snapped it off, and then crashed into the pavement. The pilot, I heard, will live; the gunner will die. The official French communique numbers the dead at 47 and the wounded at 207 - you can imagine the damage to buildings to cause this.

"Personally I expect before long to be ordered to the training school in the zone of the advance. In the meanwhile I am now adjutant for three regiments, so have not much time to think."

Another Letter From Overseas

Here are some extracts from a letter, dated January 6, from H. S. Youngs, formerly grazing examiner in District 1. Lieutenant - or, as he probably is now, Captain - Youngs received a commission in the regular army shortly before the United States entered the war, after passing the prescribed examination, and was assigned to the 16th Infantry. We find the letter in District 1 Bulletin.

"Christmas Day I spent in the trenches. It was a beautiful sunshiny day, but very crisp, the snowfields on No Man's Land shone bright enough to make one sunblind.

"Had one rather unique experience that morning. A young Boche daredevil in an aeroplane came straight for our (the British) lines, flying very low. I was standing with a Scotch officer, watching him, when he dived at us and opened fire with his machine gun. I don't believe his machine was fifty yards above the ground and coming like the wind. I could see the gunner plain as could be, aiming his gun at us, and hear the rat! tat! tat! of the gun and the plank of the bullets hitting the trench. However, he was going too fast for accurate shooting, and he was past us in a second. He then turned and flew over the fire trench, firing at the man with his machine gun, then speeding back for his own lines. It was all done so quickly that he was safely back before our machine guns were opened on him.

"I left the British front the day after Christmas, and came back through Paris. I saw Gaby Deslys in her Americanized Revue at the Casino de Paris. She had a "Jazz-Band" which played American rag time. Paris has gone wild on American rag time.

"Came back here to my regiment and found that I was up for a captaincy. I have passed my examination, but haven't heard from it yet.

"I am still Regimental Intelligence Officer, and am training all the scouts, observers and snipers, so we will be able to deal Fritz a little misery Tout de Suite. I am very proud to belong to our First Division, "The Fighting First." We are all veterans now, have been tried pretty sorely, but the men have stood the test wonderfully. I expect we will be a shock division, and if so there won't be many of us left by next fall.

"The cold is the hardest thing to bear. It is frightfully cold here now, a miserable wet clammy cold. My feet are wet all the time. But we are well fed and well clothed and can stand it as well as anyone.

"Did you see the highly imaginative picture in a late number of Leslie's of our first brush with the Germans? I am sure it didn't look anything like that to me. Impressions as follows:

1st.--Black as Hades.
2d. --Flashes of blinding light everywhere.
3d. --All the noise in the world condensed and let down on us.

These are pretty hard to show in a picture, I guess.

"Well, for a short space things are pretty tranquil here. Everyone hopes and prays that we will have a grand finale soon and lick the Boche before the summer. Let's hope."

Washington Office Notes

E. E. Carter has left for the West, where he will visit Districts 5, 4, and 2, to take up planting plans.

T. W. Norcross is back from a swing around the districts. The object of Mr. Norcross's trip was to ascertain what road building work should be carried on this year under the Federal Aid Road Act. It is the policy of the Service to confine construction work to those projects for which the need is urgent, in order not to draw too heavily upon the labor supply while the war lasts.

Notes by the Way

According to the "New York Herald," England has recruited a Women's Forestry Corps that is doing remarkable work in cutting trees and turning them into lumber and trench and mine timbers. The Herald fails to say where the ladies are working, but if they are in France their presence ought to remove all excuse for loneliness on the part of members of the 10th and 20th Engineers.

Bates College has added a four-year course in forestry to its curriculum. In charge of the course is Prof. Lawrence Grose, a graduate of Brown University and the Harvard Forest School. A working field is provided by a tract of some 12,000 acres, situated mainly in York County, Me., which came into possession of the college on January 1 through a provision in the will of the late Benjamin Clark Jordan, a prominent lumberman of the State.

The following is from a letter recently received by the Service:

"I am in the employ of the U S Army. as a wood Inspector in the Curtiss Aeroplane factory at North Elmwood Ave Buffalo N Y & would like a book or books on subjects such as the different kinds of wood how to distinguish one from another. their strengths. a few pointers on the duties of a Government Inspector & etc would you kindly advise me which book to get."

The Pennsylvania Forestry Commission announces that at least 8,000,000 young trees will be planted this spring on cut-over lands owned by the State. Good work, brothers! Pennsylvania seems to be making a real start towards getting back its forests.

The latest Forest Service publication is Department Bulletin 605, "Lumber Used in the Manufacture of Wooden Products," by J. C. Nellis, issued February 27. The bulletin presents, for each State and for the country as a whole, figures showing the comparative amounts of each important wood used by each industry. It is going to be mighty useful, says Industrial Investigations, to Government departments and war industries using wood.

The other day we asked Claude M. Ballard, who sells War Savings Certificates and Thrift Stamps to members of the Washington office, why the United States had gone into the war? "That's easy," said Mr. Ballard. "To make the world safe for the Democrats."

One War Ends

No protests have been received from stockmen against the decision to open the Battlement and Gunnison Forests in Colorado to sheep. Inasmuch as these two Forests were formerly hotbeds of hostility toward sheepmen, the lack of protest indicates that the old feeling is pretty well shot in the foot.

A Correction

In the item in last week's Bulletin concerning the meeting of the War Council of the Society of American Foresters, A. B. Recknagel was mentioned as of Syracuse University and R. S. Kellogg was put down as Secretary of the National Lumber Manufacturers' Association. Professor Recknagel is at Cornell, and Mr. Kellogg has exchanged his position with the Manufacturers' Association for one as Secretary of the News Print Service Bureau. Our apologies to everybody! We desire to be accurate. If you see it in the "Weekly Bulletin" it's probably so.

New Dating of the Bulletin Goes Into Effect

As announced last week, the present issue of the Bulletin bears a Monday date. Succeeding issues will follow suit. Forms close at noon on Saturdays, and distribution will be made, whenever possible, on Mondays. In this way we hope to make our news fairly fresh.

Our New Dress

Spring is the time to cast aside old clothes (until next winter), and so with this issue the Bulletin, in keeping with the season, appears in a brand new type dress. We think that the new type makes a better appearance than the old and is easier to read when single spaced.

Forest Products Laboratory

Like the storm bird from which it received its name, the German Albatross machine apparently is able to defy all kinds of bad weather. Pieces of glued-up veneer taken from a recently captured specimen have withstood boiling for twenty-four hours in water, followed by baking twenty-four hours at a high temperature, without apparent injury.

There is little likelihood of a shortage of material for the Laboratory's various tests on airplane woods. Owing to the activity of the Section of Lumbering, a sufficient quantity of logs of all species has been collected to meet all requirements for the calendar year, - provided, of course, that no new tests are devised and that no more shifts are added to the Section of Timber Tests.

Mr. Graves was one of the speakers at the last meeting of the Madison Saturday Lunch Club. The luncheon was attended by many members of the Forest Service, including Assistant Forester Earle H. Clapp, District Forester George H. Cecil, and Mr. Everard, of the editorial staff at Washington.

Mr. Pfeifer, a chemist for the Dutch India Lumber Company, visited the Laboratory to review the progress made on certain wood distillation projects since his last visit a year ago. Mr. Pfeifer is returning from Holland to Java, where he will continue his work in the chemical utilization of the forests owned by his company.

District 2

It has been decided that the range reconnaissance work presents an excellent opportunity for securing data on the game possibilities of the Forests, without additional cost. Information is particularly needed about areas where game winters. Obviously, the possibilities for game propagation in any locality are not determined by the amount of summer forage, but by the amount of winter feed suitable for game. Our grazing studies give us a line on the possibilities of livestock production, and a similar yardstick will be found for measuring the possibilities of game production.

Arrangements have been made to furnish the northern Great Plains field station maintained by the Bureau of Plant Industry at Mandan, North Dakota, with 105,000 excess seedlings from the Bessey Nursery, Halsey, Nebraska, at the cost of distribution. These seedlings will be transplanted for two years in nursery beds, after which they will be distributed to settlers in western North and South Dakota and in eastern Wyoming and Montana.

A quantity of Norway, Scotch, and Austrian pine transplants from the Bessey Nursery will be shipped this spring to the U. S. disciplinary barracks at Fort Leavenworth, Kansas, to be used in an experiment to test the value of these species in that region. The War Department has a reservation of about 4,000 acres of timberland which has been under the management of a forester for ten years.

The reporting of three small forest fires in Colorado during the month of February, one on the Pike and two adjoining the Colorado Forest, marks an unusual condition in the Rocky Mountain District at this season of the year.

Forest Planting Assistant Turner, formerly in charge of the Fort Bayard Nursery, New Mexico, has been transferred to District 2 to become foreman of the Bessey Nursery at Halsey, Nebraska.

District 5

One thousand head of goats which were refused by the slaughter houses of Los Angeles, have been rented by the Forest Service for $20 a month to graze upon the firebreaks in the Angeles National Forest.

The Forest Service exhibit at the 8th National Orange Show at San Bernardino, February 20 to 28, was visited by several thousand people daily. It consisted chiefly of models showing the principal causes of forest fires, the effect of run-off on forested and deforested slopes, and the system of check dams and reservoirs used in Southern California flood control. A model Forest Service lookout tower and ranger station constructed by Ranger Maxfield attracted considerable attention.

Supervisor Merrill of the Monterey has resigned to engage in ranching. The Monterey will become a ranger district of the Santa Barbara, with Ranger H. H. Hunt in charge.

Supervisor Norman Sloane has been transferred from the Cleveland to the Shasta Forest to take the place of Supervisor Hammatt who is now in the District office.

Forest Examiner M. R. Tillotson, recently on the Stanislaus, has been promoted to Supervisor of the Cleveland.

Applications for the grazing of 80,000 more sheep than can be handled have been filed with the Supervisor of the Klamath Forest. The Klamath will this season carry 32,000 more head of stock than ever before.

District 6

A block of airplane spruce on the Olympic, containing 275,000 feet of spruce suitable for riving, has been sold to Herbert Olson, of Quinault, Washington, at $5.30 per thousand.

Deputy Supervisor McDaniels and Grazing Examiner Ingram are making a field trip through eastern and southern Oregon, meeting the stock associations. They expect to complete the organization of the central and eastern Oregon sheepmen while in the field.

Arthur E. Kloe, formerly a scaler on the Snoqualmie and Columbia Forests, has left the Service to sail on the United States Shipping Board sailing vessel "Monongahela," bound for Honolulu, as an able-bodied seaman.

The Mountaineers, of Seattle, will have their annual summer outing in the Monte Cristo country, on the Snoqualmie Forest. The Mazamas, of Portland, will take their annual outing south of Wallowa Lake, on the Wallowa Forest.

Earl S. Renier, formerly a ranger on the Snoqualmie, is now with the Seventy-eighth Company, Canadian Forestry Corps, somewhere in France.

Because of war conditions, planting operations in District 6 will be somewhat curtailed this season. The total area that will be planted is approximately 1,732 acres, scattered over the Crater, Oregon, Santiam, Siuslaw, and Wenatchee Forests. Douglas fir and western yellow pine will be used. About 1,180,000 trees will be planted.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

March 18, 1918.

Self-Analysis

How many of us step out of ourselves once in so often for a little self-analysis? Self-analysis means seeing myself as the other fellow sees me. It means separating myself into my various elements and fixing the good and bad points of each. This part of me, for example, hates to talk. Thoughts do not come readily, or if they do, I have trouble in expressing them clearly. Another part of me is disinclined to go into necessary details with fellow workers or with Forest users. These are stumbling blocks in the way of my becoming a thoroughly efficient public officer, and it is up to me to set about systematically to remove them.

To go further, I might ask myself what I am doing to help the men under me. Have they the right point of view? If not, what is the trouble? Contentment helps a man mightily in getting the right perspective for his work. It makes him feel that obstacles are merely part of the game, things that can and will be overcome. Am I seeing to it that the men under me are contented? Or have I got into the habit of letting well enough alone? Do I place responsibility for failure at another man's door when, in the last analysis, it properly belongs at mine? In nine cases out of ten when we set out to better things, we need to start with ourselves.

Let it be assumed that I am a Forest officer and that I have started with myself. Would it not be a good plan to apply the method of analysis also to conditions on the area under my charge? Everything counts. Care of camp sites, for example. It is not enough for me to say that the camps have been cleaned seven times and are still dirty. Why are they still dirty? It is up to me to find this out and to hit upon a means of ensuring cleanliness. What about the telephone system? Is proper provision made for swamping out, replacing insulators, and eliminating static? Do I pass and repass line trouble without making a move to correct it?

Then consider the matter of trails. Are those in my Forest brushed out? I ought to know whether they are or not before somebody else, perhaps a district office man, calls my attention to the bad shape they are in. As things ordinarily go, however, I may not realize their condition unless I put the question to myself, for one soon gets accustomed to bad conditions if no standard is kept constantly in mind. Am I in the habit of riding around a tree in the trail or past an old, out-of-date notice without cutting out the one or tearing down the other because I "haven't time"--in other words, because I didn't pull myself up? And then do I arrive at camp, station, or headquarters town well before the close of the day, with nothing in particular to require my attention, when by stopping here and there along the route I could have corrected a number of matters that did require attention?

These things may seem unimportant. Perhaps they are; yet they form the ground work of Forest administration, and in the aggregate they count. And besides they are only examples. The principle of self-analysis can be applied to every line of Service work, whether on the Forests or off, and by every member of the Service from executive officer to guard. It doesn't mean that a man is expected to do the impossible; it doesn't mean that he is called upon to accomplish more than is practicable with the facilities at his disposal. Its object is merely to make certain that he gives the best service of which he is capable, that he makes the most of his opportunities. I have found it helpful in my own case, and I pass it along to readers of the Bulletin for what it is worth.

SMITH RILEY.

More Pay and an Eight Hour Day

On March 15 the House of Representatives, in connection with the Legislative and Judicial Appropriation Bill, voted a flat salary increase of $120 yearly for Federal employees receiving $2,000 or less. At the same time it adopted the so-called Borland Amendment increasing the minimum work day for all Government employees from seven to eight hours. On the same day the Senate in Committee of the Whole, by a vote of 29 to 28, adopted the Borland amendment to the Agricultural Appropriation Bill, applying the eight-hour day to employees of the Department of Agriculture, which was passed by the House last week. The legislative bill, with the salary increase and eight-hour day proviso for all employees, now goes to the Senate for action. Owing to very close vote in the Senate Committee of the Whole and the fact that it has been agreed to have a separate vote on this amendment when the bill is finally acted on by the Senate, the outcome is still very much in doubt.

Other Legislation

The Urgent Deficiency Bill carrying the item of $750,000 for the Forest Service passed the Senate on March 11. It is now in conference, but since no question was raised in either branch of Congress concerning the Forest Service item we may expect the full amount to become available before long. It will be none too soon for the Forest Service, at that. We need the money!

Great Basin Experiment Station

The name of the Utah Forest Experiment Station has been changed to the Great Basin Experiment Station. Under the old name there was a tendency on the part of the public to confuse the station with the Utah Agricultural Experiment Station, and the change was made to do away with this confusion.

Requirement for Camp Fire Permits Extended

The Secretary has approved the amendment to Paragraph (E) of Regulation T-1 extending the requirement for securing camp fire permits hitherto applicable on the Angeles Forest only, to such portions of the Cleveland and Santa Barbara Forests as the respective Supervisors may designate.

Washington Office Notes

A. H. Cousins, the genial Property Assistant of Ogden, is in Washington for several weeks for the purpose of making the awards for the purchase of supplies and equipment for the ensuing fiscal year.

John Kerr, who has been with us for a matter of six weeks, has returned to Albuquerque to take up his duties as Chief of Grazing in District 3.

Grazing Examiner Mark Anderson, District 4, is here for a six weeks' stay to assist Mr. Jardine in the preparation of grazing publications.

J. H. Sylvester Guilty

On March 15 a jury of the county court at Flagstaff, Arizona, found J. H. Sylvester guilty on a charge of criminal libel. In correspondence directed to the District Office at Albuquerque, to the Forester's office, and to the Secretary's office, Sylvester used language impugning the honesty and integrity of certain Forest officers in District 3. On the advice of the office of the Department Solicitor, this correspondence was brought to the attention of the County Attorney of Coconino County, and the case against Sylvester by the State of Arizona was the result. The trial lasted three days. The jury returned a verdict after being out only thirteen minutes.

Meetings of the Washington Section

At an open meeting of the Washington Section of the Society of American Foresters on Thursday evening, February 28, at the home of Herbert A. Smith, the subject "Forestry and the Fuel Problem" was discussed by A. F. Hawes. After describing what the Forest Service has done to encourage the use of wood in place of coal, Mr. Hawes called attention to the fact that the increased demand for wood fuel constitutes both an opportunity for and a danger to the practice of forestry, for while it creates a market for products not otherwise merchantable, it may also lead to over-cutting and to the destruction of potentially valuable timber trees.

At an open meeting held on March 14 at the home of Earle H. Clapp, the subject was "Forest Products and the War." By way of introduction, Mr. Clapp outlined briefly the many and varied uses of wood in the present struggle and told of some of the more important investigations under way at the Forest Products Laboratory. Following Mr. Clapp, H. S. Betts described the methods of testing boxes for the shipment of munitions; the grading, preservation, and handling of ship timbers; and the operation of the Forest Service dry kiln. Following Mr. Betts, Rolf Thelen explained the various types of airplanes and their method of construction. Both Mr. Betts and Mr. Thelen illustrated their remarks by reference to a number of models and drawings.

"More Advertising"

The District 2 Bulletin for February contains a contribution from Forest Supervisor Simpson entitled "More Advertising," of which, for lack of space to quote it in full, a condensation is here given.

Supervisor Simpson was calling on a local editor who began to talk of the Forest Service work (as he supposed) in coyote and prairie dog eradication and in the dipping of infected cattle and sheep. When told that these were activities of other bureaus in which the Forest Service merely cooperated, the editor said that the only Government service locally known to the people was the Forest Service, and that he assumed that all Government activities were locally directed by them. "He then complained that the directing heads in this locality did not inform him of the work being done and that he was unable to write intelligently unless he knew just what was being accomplished by the respective Bureaus."

After an address before a local commercial club one of the members said: "This is the first time that I knew that the Forest Service was interested in other things except timber and grazing fees; what you need are cooperation and appropriations for your other activities."

Stockmen ask why the Forest Service does not build that drift fence or develop that seep; local organizations seek assistance and advice on roads, recreation centers, etc. "In our advertising we have established in the public mind that the Forest Service organization exists, and through their contact with the Service we have established that certain activities are under control; but we seem to have failed to give the public a clear idea of just what the Service stands for. Mr. Ordinary Citizen has no conception of how a Government Bureau is maintained. Mr. User pays $25 grazing fee and wonders why that $25 can not be used for a needed trail. He knows that the Forest Service exists because it took his $25, but his knowledge goes no farther than Genesis."

"The question seems to be more the method of advertising, than the amount we do. Attractive signs are good advertisements, for they cause Mr. Traveler to stop the first Forest officer and ask questions. Explanations, if properly given, are good advertising."

"Printed advertising usually covers only one subject, and that only, after all, in a superficial and brief manner. Printed advertising, therefore, should be considered only as a 'feeler'--'a patrol in No Man's Land', while this collection of individuals we call the Service is the real advertising medium, that should go 'over the top'".

"My idea is to differentiate our advertising into that which will create the interest and that which will explain the details."

"Lose no opportunity to explain; direct your answers to get another question, and cover the subject from silviculture to sanitary engineering; you will have a clearer and more enthused insight into your job, and Mr. Citizen will have more knowledge and respect for it."

There is food for thought in these ideas of Supervisor Simpson. More and more the public, and we too, are coming to see that the Forest Service is not a far-away, intangible, impersonal Washington bureau that makes rules and restrictions, but a beneficial agency impersonated in local officers who belong to the community. It is part of the job to interpret our work to the public, patiently, carefully, in season and out of season. There are many things that it is not easy for the ordinary citizen to get the hang of. "You explain," says Supervisor Simpson, "the system of appropriations. You enlarge upon the fact that Congress does not know what he desires, and that if he is to be helped he should incidentally help himself, by telling his Congressman what he wants. He gets a clearer light as to the why, but usually shakes his head and wonders why the Congressman can't take the word of the Government experts, and not bother him." Yet these are the things which Americans must understand if we are to make democracy a success. We are helping educate the everyday man in citizenship. We are advertising, in other words, a mighty big thing--the possibilities, the methods, and the requirements of self-government by a free people. To do so, and to do it well, is a part of fighting Kaiserism.

Knitting, Past, Present, and Future

The work of equipping the Tenth and Twentieth Engineers with sweaters has been completed. To the best of our knowledge, every man in these two regiments has been supplied. Any additional sweaters which may come in will therefore be turned in to the Red Cross, to dispose of wherever they are most needed.

In a way, this will be a reimbursement to the Red Cross for some of the sweaters which they supplied the forest regiments when we were not able to furnish the number needed at once. Had the Red Cross not been able to help out on a large scale, it would have been entirely impossible to provide for more than a small fraction of the total number of men. We wish we could have had a larger part in outfitting them, because of our special interest in these regiments. Nevertheless, there is ground for satisfaction in having done as much as we succeeded in doing. Especially, the interest taken in the Districts, the promptness with which they organized, the amount of knitting which they turned in, and their money contributions call for unstinted praise.

To date, the receipts of garments from the 6 western Districts (including those which have come from individual Forests) and from Madison have been as follows:

Dist.	Sweaters	Wristlets pairs	Socks Pairs	Dist.	Sweaters	Wristlets Pairs	Socks Pairs
1	83	29	11	5	100	16	
2	76	29		6	153	16	1
3	66	13	1	Madison	87	1	3
4	142	29		Total--	707	133	16

In addition, one helmet was received from District 1, and one muffler from District 5, making a total of 858 garments.

The work done by District 7 has not been recorded separately from that of the Washington office.

In money contributions the record of the Districts is shown below. Since the wool fund took over the surplus of the ambulance fund, and since the ambulance fund was for the benefit of the Forest Regiments, contributions to the ambulance fund are shown, as well as the amounts raised specifically for wool purchases.

District	1	2	3	4	5	6	Madison
For ambulance fund	$400.00	328.35	447.30	215.00	415.87	1,429.78	60.00
For wool	205.00	12.75*		80.50	40.00	296.29**	

*Contributed by the Gunnison National Forest.

**Includes $151.79 received from the Crater National Forest.

District 6 thus leads overwhelmingly in money contributed. Counting 5 pairs of wristlets as equal to one sweater, District 6 is also slightly ahead in output of knitted work, with District 4 a close second, and Districts 5 and 1, Madison, and Districts 2 and 3 following in the order named.

The Madison Laboratory, in addition to its contribution to the ambulance fund, raised $170.65 for the knitting work, which was expended for wool bought independently, and for a knitting machine and accessories costing $55.

Last week, when it had been learned that the needs of the 20th were practically supplied, an emergency call came for garments for the 60th Engineers. The Department of Agriculture war work organization was especially interested in this regiment. As we had received a great many sweaters for the Forest Regiments from the Department, it seemed wise to help with the 60th. The number of our garments sent the 60th is shown below, together with the total number of garments furnished by or through the Forest Service, to the 10th and 20th.

	To 10th	To 20th	To 60th	Total
Sweaters	95	1,718	100	1,913
Wristlets (pairs)	18	506	27	551
Socks (pairs)	208			208
Helmets	8	132	6	146
Mufflers		87	2	89

Also 30 trench caps, 3 abdominal bands, and 1 ear muffler to the 20th, and 8 trench caps and 1 ear muffler to the 60th, which had been sent by Detroit club women to Mrs. Graves' committee along with some sweaters and other garments included in the table. A number of garments received from Miss Mira L. Dock, vice-chairman of the Conservation Department of the General Federation of Women's Clubs, are also included in the table.

There are now on hand in Washington about 200 sweaters.

The knitting of socks is under good headway. Mr. and Mrs. Barnes are making progress with the knitting machine--though Mr. Barnes says it is harder to subdue, but not to break, than a range broncho. Most of the $500 received from the Lumber and Forest Regiments Relief Committee for buying sock wool has been spent, together with some money received from the Crater Forest. Sock wool has already been sent to Madison and to Districts 1, 2, 4, and 5, and to the Gunnison, Chelan, and Crater Forests.

It is perhaps not out of place to suggest a caution regarding the necessity for careful work. Some socks have been received which were either too small or too poorly shaped to pass the Red Cross inspection. Such garments have to be raveled out and the wool used over again. If the quality of the work done on the sweaters is any indication, there appears to be greater danger of this when knitting is done on the Forests than when it is done at District headquarters.

Socks are sent in 7-pound parcel post packages to the 10th as fast as completed. Since each such package requires 84 cents in postage, sent from any point in the United States, the District offices will be asked to send direct. This will save the cost of transmittal to Washington. A scheme will be worked out for having each District send socks to an individual company, under a plan to prevent duplication and to provide, in time, for all the companies, if possible. The rate at which this can be done will depend primarily on the money available. A plea for another contribution for sock wool will be presented to the Lumber and Forest Regiments Relief Committee when it meets in New York on March 26.

A PLAN OF WORK FOR THE RANGER

(From February District 2 Bulletin)

Plan for more than you can do,
Then do it;
Bite off more than you can chew,
Then chew it;
Hitch your wagon to a star,
Keep your seat, and there you are!

Forest Products Laboratory

An airplane propeller manufacturing plant is in process of construction at the Laboratory. The work done in this factory will be of an experimental nature, principally to determine the effect of different manufacturing and atmospheric conditions on propellers. Several experienced cabinet makers and wood workers will be employed in the construction department. For the construction and testing of the propellers, many special machines will be required, among them copying or shaping lathes, balancing stands, gluing stands, protractors, laying-off plates, and many complicated testing instruments. Three conditioning rooms have been built, and these will be placed under the control of special thermostatic apparatus, to insure constant temperature and humidity. Some of the machinery for the plant has been delayed in transit, but most of the departments in this miniature factory will be in operation in a short time.

Specifications and plans have been prepared at the laboratory for a central drying plant to be located at Vancouver Barracks, Washington, and used for the drying of spruce and Douglas fir airplane stock as it comes from the new cutting-up mill. These plans provide for 120 units with a drying capacity of 10 million feet per month.

The box testing department has been making a study of the relative efficiency of fiber board and wood partition in the boxes used for hand grenades. It has found that not only do fiber partitions withstand more drops than wooden ones, but they absorb shock to a greater extent and thus afford greater protection to both box and contents. Moreover, the saving in cost from replacing wood with fiber board would amount to about four dollars per hundred boxes.

Effect of Kultur on Fungus

Mr. Humphrey recently returned from a fungus-hunting expedition in the South, bringing back several new and fearful wood-destroying organisms. One particularly important specimen captured is the notorious Poria, which, in its ruthless demolition of valuable buildings, out-vons von Hindenburg. Poria is now being kept in solitary on agar, and its criminal tendencies in this environment of pure kultur are being carefully studied.

District 2

The war requires efforts on our part often wholly different from peacetime activities. The Forest Service organization is finding it necessary, for instance, to take on many new duties. Conspicuous among them are the cooperation with State and other organizations in spreading information about war activities. In the "Four-minute Service" and in lantern slide lecturing Forest officers are called upon to take active and leading parts in their communities. While perhaps ninety per cent of the Service organization may not heretofore have felt itself personally equipped for this sort of thing, the District 2 men who have been called upon are living well up to the responsibility. Not only that; they are also developing an enthusiasm for it that augurs well for the application of the ideals of the Service in local communities, the results of which will be felt long after things again become normal.

JOHN H. HATTON.

Notable among the activities of the Supervisors is the now almost universal practice of taking up matters of grazing administration with organizations of local stockmen direct, either through association meetings or informal gatherings at convenient points on or near the Forests. The results are more than gratifying. Almost every meeting passes resolutions favoring better range management through the application of improved methods worked out by the Service. Conspicuous among the resolutions are those dealing with better breeding, better control of breeding, and the fuller utilization of the forage resources. Unfortunately, the State laws regarding the quality of bulls to be placed on the range are not in keeping with the advances the stockmen have made in producing a better class of stock. While our policy, heretofore, has been not to approve resolutions regarding breeding animals which exceed the State requirements, we have come to

the point where pressure has become so strong from local organizations and where such large majorities of the stockmen are asking the enforcement of better rules, that we are now approving these requests wherever the majority in favor constitutes practically a unanimous vote.

Our work in larkspur control is also meeting with universal support from the stockmen wherever we have demonstrated its merits. On a number of Forests cooperative agreements have been worked up whereby money contributions are being made by the stockmen to further this work.

With indications pointing to an early spring, plans are being laid to begin on March 20 the planting of 600,000 young trees in Bear Creek canon on the Pike Forest near Colorado Springs. For a time it looked as if labor conditions would seriously retard if not wholly postpone the undertaking, but as the result of an item in one of the Denver papers concerning the project and the labor shortage, enough applicants have already presented themselves to make up the required planting crew of sixty men.

District 3

The Federal Food Administrator for New Mexico is sending to the Rangers whose names and addresses have been given him circulars of instruction and a supply of certificates to be used by purchasers of wheat flour who already possess cereal substitutes. Ranger Turk of the Lincoln reports that through a misunderstanding of the food regulations, residents of his neighborhood who grind their own cornmeal have been under the impression that they are forced to buy cornmeal or other wheat substitutes along with wheat flour.

5,046 persons visited the Walnut Canyon National Monument on the Coconino, from April to December, 1917.

Scaler Merkle submits the following gem, together with his translation into New Mexican:

"Der sir if you have any cargees bat thes sed
I wish you let me no bat my address is......"

"If you have any charges about these seed wish you let
me know about. My address is......"

The letter concerns seeds for crops.

The knitting committee shipped 15 sweaters to Washington yesterday, making 66 that have been shipped to date.

Another gem for our proposed "Complete Letter Writer":

"Dear friend I got that letter thet I got from you
I got it missplace and I wish you would send me a nother
and I will answer it rite away".

The Director of Explosives in the Department of the Interior has requested the Forester to appoint certain specified Rangers on one of the National Forests of California as licensed agents under the regulations governing the use of explosives.

The Patriotic Sheep

I am a patriotic sheep,
I did my bit, and (damme!)
Although I grew my soft, warm wool
Expressly for a Sammy,
A lady bought it, I have heard
(And may the foul fiends get her!)
She took my patriotic wool
And made herself a sweater!

(Stolen)

Ranger Wingo reports a 9-acre fire on Blue Water Canyon February 14, and states that the fire burned up to within two feet of snowdrifts and snow was used to extinguish dead logs and stumps.

The following extract is from a letter dated January 21, from A. W. Hendrix, of Company F, 10th Engineers:

* * * * We are in a wonderful part of France (our company), for both scenery and timber, and hope in a short while to be sending more than our share of timber to the Big Chief. We have a wonderful bunch of men, hard workers and able to take care of themselves under most any circumstances. What a fighting unit they would make! An English officer at __________ was overheard to make the remark: "God! if I had a bunch of men like that behind me I would be the happiest and most envied officer in the British Army!" and it is a Forest Service Regiment! Here's hoping we live up to the ideals and expectations of the Service.

District 5

Experiments are being undertaken by a paint company in Oakland for the use of oleoresin procured during the turpentining experiments on western yellow pine for the manufacture of marine and anti-fouling paints. If these experiments prove successful they may open up the possibility of a new naval stores industry in California.

District 5 is effecting a noteworthy saving in the lettermail envelopes by opening them carefully and returning them to the sender to be used again. One envelope has made its tenth trip and is still in good condition. Most of the Forests are following the lead of the District Office; in fact, we are advised that the Sierra inaugurated this plan several years ago. As these envelopes cost in the neighborhood of a cent apiece, the aggregate saving in a year would be considerable.

Reluctant to snatch the laurels from any deserving brow, it is nevertheless believed that to District 5 belongs the honor of having the first sweater knitted by masculine hands. Mr. Frank Haynie, Chief of Maintenance, began his first sweater promptly upon receipt of the first shipment of yarn from Washington, and has just completed his second, which is considered such a triumph of art that it hangs in the Mail Room, the admiration of all beholders.

In response to the call for contributions to buy wool, District 5 raised $149.50. Most of the amounts were for sums ranging from one to five dollars, but one ranger sent his check for $20. We are now girding on our small-sized knitting needles preparatory to learning how to make two socks grow where only one grew before.

A gentle and almost continuous rain for the past two days has soaked California, and the high blood pressure of the farmers and stockmen is now about down to normal.

District 6

Forest Examiner Ken Smith has obtained a patent for a compass altimeter, an instrument for disclosing readings of vertical angles in connection with the compass in ordinary and topographic surveys. The instrument is simple and inexpensive in construction and combines sights for azimuth and vertical angles. No alteration of the compass parts is required, and the attachment may be removed, leaving the compass ready for ordinary use.

Mr. Kummel left Portland for Page Creek Nursery, on the Siskiyou, last week, where he will supervise spring operations. One hundred and twenty thousand western yellow pine seedlings will be taken up for planting, and the same number will be transplanted from the nursery beds to transplant rows. Spring planting operations in District 6 began March 13, on the Tallowbox Mountain project, Crater National Forest. This is the third year's planting on this project. The tract is a yellow pine burn which has grown up to brush so dense that it is only possible to plant down the slope. Lanes have been cut at the upper and lower edges of the area, with a connecting lane up the slope. The planters use these lanes to reach the upper edge of the area and plant on the way down. The work is largely experimental, as the brush type presents new and unsolved planting problems.

A tract of timber on Karnowsky Creek, Siuslaw Forest, embracing 1,800,000 board feet Douglas fir and 400,000 feet of western red cedar, is being advertised at the minimum price of $1.80 for the fir and $1.10 for the cedar.

A sale of 3½ million feet of airplane spruce located near Lake Quinault, on the Olympic National Forest, has been awarded to E. H. Adams, of Humptulips, Washington, at $5.86 per thousand. A small mill will be put up on the tract for the manufacture of airplane spruce.

Forest Examiner A. H. Wilcox is in the District 6 office for a short detail, on his way from the Santiam to his new assignment on the Whitman Forest.

Deputy Forest Supervisor B. F. Heintzleman has been transferred from the Cascade to the Tongass Forest in Alaska. He is in the Portland office on detail before sailing to his new field of work.

A "take-down" Sibley stove has been received from District 1. It is made in three parts for convenience in packing. A half-dozen of the stoves are being made locally and will be tried out in spring planting camps of District 6.

District Forester Cecil has returned from the Madison Laboratory, where he spent several days in conference with Col. Graves on the spruce situation in District 6.

Supervisor E. H. MacDaniels, of the Chelan, sent four sweaters to the District office, with a note attached saying the four sweaters were knitted in five days by Mrs. Thomas E. Benton.

Supervisor Harris and Ranger Mitchell of the Okanogan, Supervisor Jacobson of the Deschutes, Supervisor Bartrum of the Umpqua, and Deputy Supervisor Campbell of the Washington are on the list of Forest officers of the District belonging to the Four Minute Men organization. Supervisor Fromme writes from Olympia that the Four Minute Men are organized in every town in the State of Washington having a moving-picture house.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

March 25, 1918.

Small Timber Sales a Field for Public Service

Do our eleven thousand odd timber sales made each year by rangers represent effort, or unwatchful waiting? In other words, are we salesmen or merely "order takers"? The man who can make a timber sale against odds is a whole lot more credit to himself and to his organization than the man who waits for the purchaser to get good and ready to buy and then land himself.

On some National Forests, of course, the established demand and the capacity of the Forest to produce leave no room or need for salesmanship. To such situations what is said here does not apply. But in many localities there is a special reason at the present time for aggressive salesmanship, since developing the use of local material will lessen the pressure on railroad transportation and equipment. It is also worth considering to what extent material directly or indirectly necessary to the war can be economically produced on the National Forests, if we bestir ourselves in the matter.

There is a vast difference between the salesman and the "order taker." The salesman is keen, alert, aggressive, tactful; he knows his stock, the terms of sale and delivery. The Forest officer who is in a position to make sales should have these qualities and many others. He should know about freight rates, where they are of importance. He should know the various bodies of timber on his district which are accessible to the small operator, what it will cost to log and transport the material to the mill, what it costs to mill the timber and what it should sell for.

Unfortunately, the logger and mill man are not always efficient. An array of facts is insufficient to make a profitable operation. The equipment may be old and broken down. The mill may be a wreck and the prospect may not know it. Right here the Forest officer has his opportunity. If he does not know himself, he should try to find out from better informed mill men and other Forest officers how users of timber can make their operations reasonably profitable.

The prime difficulty with the small sawmill man is often that he tries to be a banker as well as a sawmill operator. Twenty or thirty dollars a thousand feet looks like so much money that he feels he can take a chance on getting his pay from the farmer in a reasonable length of time. Ask the average mill operator how his collections are if you don't happen to know. If he is in difficulty he might do better to sell to local dealers or to sell to consumers only for cash or its commercial equivalent.

Local timber is not always easily sold, and in fact it is frequently discriminated against by local dealers, carpenters, and builders, because it is usually rough, unseasoned, ungraded, not cut to size, and frequently difficult to obtain. These objections can perhaps be overcome, and the consumption of timber from local sources can be increased if the dealer realizes the indirect advantage to him of the development of a local industry which gives employment to labor and helps build up the community. The local mill man must also be willing to recognize that, to secure a local market in the face of the disadvantages under which the quality of his output places him, he must be willing to make his price right. He can not expect to absorb all the margin in his favor due to the fact that railroad transportation charges and dealers' commissions are saved when the local dealer buys from him.

When local timber is established in the market, outside competition is likely to grow more keen. To get the local dealer's business, he will be promised prompt deliveries of well manufactured, well seasoned, and uniformly graded material, in any quantity desired. To meet such competition the local mill man will need to make the best product possible from his timber. From the standpoint

of the Forest Service, it is desirable that operators cutting from the Forests should utilize their material to the best advantage, since inefficiency on their part means a loss to the public. Everything that Forest officers can do to help local operators improve their output counts on the right side. It is for us a part of good salesmanship, which consists in making the Forests serve the public welfare just as fully and successfully as possible.

CLINTON G. SMITH.

Senate Strikes Out Borland Amendment

The Agricultural Appropriation Bill passed the Senate on March 21. By a vote of 40 to 23, the Borland Amendment requiring a minimum work day of 8 hours for Department of Agriculture employees was stricken out. The bill now goes to conference where, among other matters, the Borland Amendment and the provision for motor vehicle mileage reimbursement will be further considered.

Other Legislation

The Senate Committee on Public Lands has reported out the Grand Canyon National Park Bill. Senator Ashurst, of Arizona, has announced his intention of submitting two amendments to the bill, one providing that all permits and concessions shall be made the subject of public competitive bids, and the other that the creation of the Park shall not interfere with the right of Coconino County to charge a toll for the use of Bright Angel Trail.

The Service has been called upon to report upon a bill introduced by Delegate Sulzer, of Alaska, providing for the repeal of the provision creating 80-rod reserved spaces between entries and claims along the shores of navigable or other streams in Alaska. It has also been called upon to report upon two bills providing for additions to the Wyoming National Forest, and on a bill authorizing a number of exchanges involving lands in the Cache National Forest. All the bills will be reported upon favorably.

Washington Office Notes

John S. Cobbs, Jr., for the past two years in charge of Information, has been made Supervisor of the Arkansas National Forest. Besides getting out news stories for the press and doing other useful things, Mr. Cobbs has acted as one of the editors of the Bulletin, and we take this opportunity to express our real regret at parting and to wish him every success in his new field. Mr. Cobbs left for Hot Springs, the Forest headquarters, on March 23.

Clifford M. Woertendyke has been appointed an assistant auditor for the War Department, and will soon go to France for work with the Expeditionary Forces. On March 25 Mr. Woertendyke will be married to Miss A. G. Tillinghast, a fellow member of Industrial Investigations. The Bulletin offers its sincere congratulations to the happy pair and its best wishes to Mr. Woertendyke in his work abroad.

John A. Newlin, who knows an awful lot about the mechanical properties of wood, is in Washington for the purpose of conferring with Navy officials and members of foreign commissions with regard to the use of wood in airplanes.

R. K. Helphenstine, Jr., is visiting shipbuilding plants in the South, studying the efficiency of locust tree nails.

Lieutenant Arthur M. Cook, formerly Supervisor of the Routt Forest, was a visitor last week. Lieutenant Cook recently completed a training detail at Camp Lee, Va., and is now assigned to the 601st Engineers at Camp Humphreys, a few miles south of Mt. Vernon, Va.

A Survivor's Account of the Tuscania Disaster

The following letter from Everett E. Harpham, formerly a scaler on the Olympic Forest, but now with the Twentieth Engineers, to his brother, Supervisor V. V. Harpham, of the Ochoco, describes graphically his experience in the Tuscania disaster:

Europe, February 15, 1918.

Dear Vernon:

I was unfortunate in being aboard the Tuscania when she was torpedoed in the North Channel and had not the slightest idea of ever getting out of the mess alive. They hit us about six o'clock (dark) in the evening, and as the torpedo struck the engine room the ship could not beach herself, although we were in sight of land. Ours was the last lifeboat to reach the water, but did so in fine shape. We drifted about upon the rough waters of the channel, dipping water to keep from foundering, at the same time keeping the boat aright with the waves. I saw the big ship go down, and one could have heard the roar and rush of water upon her upper decks for miles. I do not believe there was a living soul aboard when she plunged, as all had previously taken to the lifeboats or were rescued by the destroyers.

However, little did we in the lifeboats realize what was ahead of us. We drifted about for hours, thinking perhaps we would be picked up, but it would have been suicide for the larger boats to try to rescue us after dark in waters where the submarine was lurking. So we continued to bail water, dodge the rocks, and hope, until finally we sighted what looked like an island with trees upon it. We steered toward it, but found that, instead of trees, the objects we saw were cliffs of rock. Then we tried to row away, but had drifted so near that the breakers were taking us in faster than we could row in the overcrowded boat. The officer in command raised in our boat and threw his electric flashlight against the rugged shoals only a stone's throw ahead, and we could see the white foam dashing high on the rocks. Each breaker took us nearer until finally our boat struck with a terrific crash and broke in a dozen pieces, and after that it was each man for himself. Roy Muncaster, a ranger from the Olympic, who enlisted when I did, did not have on a life belt and I am sure he was drowned.

I was taken under by the waves, hit against the rocks, and finally by some act of Providence was thrown high on a rock where I managed to hang until I was able to crawl above the highest waves. The cold wind just about finished me, but six of us, including a lieutenant, managed to huddle together under a rock where we lay in the water and mud for five hours before daylight, when a Scotch Highlander living on a plateau above rescued us. He was told of the disaster by a soldier who was not hurt upon landing.

Out of about sixty in my lifeboat only seven came out alive. We were treated royally by the Scotch people and I went to a hotel with others, where we received medical attention and kind attention otherwise. I was badly bruised in several places and suffered an internal bruise on my left side, but am getting along fine. All my personal equipment was lost when the ship went down excepting a little money loose in my pocket. However, I think the Red Cross and Army together will replace some of the stuff.

The American Consul was just in to see me, and anything I need badly will be looked after. I have the best of care and will be with my battalion before long, I think.

New Publications

Two new Forest Service publications are just off the press. These are Department Bulletin 604, "Incense Cedar," by Forest Examiner J. Alfred Mitchell, and Bulletin 620, "Effect of Varying Certain Cooking Conditions in the Production of Sulphite Pulp from Spruce," by Chemist F. E. Lunak. Mr. Mitchell's bulletin gives the results of a commercial study of incense cedar, with suggestions for management and artificial forestation. The scope of Mr. Lunak's bulletin is sufficiently explained by the title.

Greetings to the "Santiam Patrol"

We welcome to the goodly company of Forest news bulletins the "Santiam Patrol," the first issue of which saw the light on March 15. Here are some extracts from it:

"Our Patriotic Creed: We believe in our country; we believe in her constitution, her laws, her institutions, and the principles for which she stands. We believe in her future - the past is secure. We believe in her vast resources, her great possibilities--yes, more, her wonderful certainties. We believe in the American people; their genius, their brain, their brawn. We believe in their honesty, their integrity and dependability. We believe that nothing can stand in the way of their advancement and prosperity, and we believe that in our country are being worked out great problems, the solution of which will be for the benefit of all mankind."

Because he has been a grandfather for the past year and is considered too old to shoulder a rifle for Uncle Sam is no reason for John Short not to show his patriotism. He is our trail foreman during the summer; manages to get more predatory animals than all the other hunters of the community combined; turned off eleven big fat beef steers last fall to help feed the soldiers; raised several hundred bushels of spuds, and is at present engaged in the building of ships in Astoria. We wish for more men like him.

Poets' Corner

Will C. Barnes, who has been attempting to operate a knitting machine, is so much impressed with his experience that he has written a poem about it. A particularly original touch is the verse form - purl two, knit one.

The Song of the Sock

I think - to wit;
The man who, upon an innocent family laid
This exasperating, cantankerous
Knit-
Ting machine; a thing of wondrous
And perplexing parts,
Owed me a grudge, and well has he repaid
It.

I wish to do (or give) my bit
Yea, even two bits, to see the Kaiser lammed;
But I'll be --- switched
If any man
Who has no less, - nor more
Than
Five large and jointless thumbs,
Upon each hand, can
Undertake,
On this machine,
To make
Two sox grow where none were grown
Before.

With eager hands we ope'd the case in which it came,
And from it brought, as did the fair Pandora,
Trials, troubles, and tribulations galore.
And more,
It cast its blight upon a quiet and happy bower
Where now we do naught but
Sit
And knit
          And knit
                    And Knit
From early morn to midnight's dark and sleepy hour.

A Ranger's Reminiscences

Forest Ranger J. D. Maxfield of the Angeles lately contributed to the Cleveland Bulletin a few reminiscences, some of which are here reproduced:

> "In August, 1905, the writer was engaged in attaching copper wires to shiny white knobs in order that the command 'Let there be light' be further fulfilled. This, together with kindred associations with the yet unclassified 'juice' which Poor Richard brought to earth through the medium of a kite string, resulted in the doctor's suggestion to 'forget it a while and take a week off in the hills.'
>
> "After a day or two of life in the open I had forgotten whether knobs supported wires or vice versa, and was mentally compiling data for a book on 'Back to Nature.'
>
> "I was given an appointment as Forest Guard the following December. I never will forget the pleasure I was afforded in purchasing my horse and equipment, being particular that the spurs had 'jinglers' on them and the saddle was a second-hand one.
>
> "On the morning of December 1, I began the ascent of the woodland hills which were to be my home for all time. I had not proceeded over 150 yards when my saddle took a position on the opposite side of the horse from where any right-minded saddle should be, whereupon I hit the ground and Nellie, my trusted (?) steed was bucking down the trail scattering my personal and official property amongst what I learned was 'greasewood.'
>
> "With the assistance of the Ranger in whose company I was making my official debut, I got under way again and in due time arrived at the trail camp and thus actually began the life of a Ranger. The following spring I succeeded in 'putting one over' on the Civil Service Commission and actually became a Ranger and was furnished with an honest-to-goodness badge and 'Forest Ranger's notebook.'
>
> "At the time when I was making all of this history the tracts which we were called upon to guard from burning up, or down, were Forest Reserves, and the southern boundary of the San Jacinto - now the Cleveland - was the top of Palomar Mountain.
>
> "In the early days of the administration of the 'reserves' the principal duties were fighting fires in summer and building trails in winter, the headquarters' work consisting chiefly of making out one's service report, which was then a sheet no less than three feet square, with the possible exception of the issuance of an occasional burning permit.
>
> "The mention of burning permits recalls an occurrence which I believe can be classed under the head of reminiscences. Ranger Darling was advised of something in which the word 'burning' figured. The telephone was working badly but that word 'burning' was enough for Darling; he 'seen his duty and done it' and after a thirty mile ride with no stopovers he learned that the informant merely wanted a burning permit.
>
> "The settlers were mostly either opposed to, or 'lukewarm' on the question of Forest Service policy, and therefore paid little attention to the fire situation and seldom took the trouble to even advise the Ranger that a fire was burning, let alone telling him where it was unless it happened to be in the immediate vicinity of his home or property.
>
> "I had been appointed a State game warden and in accordance with my promise to 'support' etc., I was advising all the settlers as to the game laws and the necessity for procuring licenses. One of my constituents was an Indian who later came to me with his dollar for a license to kill a certain Mexican who had stolen his 'season's run' of placer gold."

(Doubtless there are many others who can "reminisce" about the early days of the Service. Unwritten history is always the most interesting sort. Don't be bashful about making known your experiences. Editor.)

District 2

Field work begun in November on the South Kawishiwi timber survey project on the Superior Forest has been completed. Approximately 50,000,000 feet of timber were estimated, for which definite application has already been received. It is expected that the timber will be advertised and sold during the coming season.

A sale of 4,143,000 linear feet of lodgepole prop material at 14 cents per 100 linear feet and 152,400 linear feet of mine timber at $4.35 per M linear feet, together with other products to be taken at the option of the purchasers, on the lower Tomichi unit on the Cochetopa Forest, has been made to the Trinchera Timber Company of Sargent, Colo. The products from this sale will be used largely in the Southern Colorado coal fields.

The Peter Mintener Lumber Company of Minneapolis has been awarded the sale of 800,000 feet b. m. of yellow pine saw timber, 19,600 #1 and 2 hewn railway ties, and 8,600 #3 ties on the Wildcat Gulch unit of the Black Hills Forest near Mystic, South Dakota, at the rate of $3.25 per M for saw timber, 10½ cents each for #1 and 2 ties, and 5 cents for #3 ties.

District 3

Supervisor Charles H. Jennings, of the Alamo-Lincoln, has submitted his resignation to take effect March 31. Mr. Jennings entered the Service as a Forest Guard and was promoted through the grades of Ranger and Deputy Supervisor to his present rank. He will be succeeded on the Alamo-Lincoln by Supervisor Arthur of the Gila. Supervisor Winn of the Apache will be transferred to the Gila, and Supervisor Selkirk, who has been acting as Deputy on the Coconino, will take charge of the Apache. These transfers will be effective on April 1.

Ranger George E. Galer, formerly of the Apache, has been transferred from Battery A, 340th F. A. N. A., Camp Funston to Company B, 9th Battalion, 20th Engineers, Camp American University, Washington, D. C.

Thomas P. Reid, formerly a Forest Assistant on the Pecos, is among the survivors of the 20th Engineers from the Tuscania disaster.

Another Tuscania survivor from this District is Albert S. Hucks, formerly skidder foreman for the Sacramento Mountain Lumber Company. He was rescued after having been in the water for some time.

Each Supervisor is being sent a sample of a mimeographed form, devised by Ranger L. D. Blodgett, for insertion in the Ranger notebook for collection of crop and residence data.

Ranger Putsch protests against changing Rangers' expenses from DA-Disbursement to O-Finance, Rangers' Expenses, and suggests "OU-Rangers' Expenses!"

Four more sweaters have been shipped by the knitting committee for the Forest Regiments. Sixteen additional sweaters are under way and will soon be finished.

Supervisor Swift reports that the first actual sale of cattle for spring delivery was recorded March 7 at the following prices:

Yearlings (1/2 steers and 1/2 heifers)	$38.00
Two-year old steers	45.00

Numerous requisitions are received for signs with directions like the following: "John Smith's Ranch, 5 miles." Ownership of ranches often changes, and the owner's name is "writ in water"; but where a ranch has a name such as the J/X, the O-O, the V/T, it soon becomes a part of popular tradition, known to everybody. Whenever possible, the name of the ranch instead of the name of the owner should be given. Why not induce ranchers to christen their ranches? It would add flavor to the country and incidentally would simplify our sign-painting.

A knitted ambulance robe has just been finished by the women of District 3 and their friends for presentation to the 10th Regiment. For the organization of the plan, the collecting of the squares, and the entire work of putting them together credit is due Miss Mabel M. Kennedy, of this office, and her mother. The robe contains 80 squares. Each square has a crocheted edge of olive drab

yarn, and the whole blanket a 2-inch crocheted border of the same yarn. Several of the squares were knitted by men in this office, who have requested that their names be withheld.

District 4 (Culled by the editors of the Weekly Bulletin from the Inter-Mountain Review Ranger.)

James M. Fetherolf, Chief of Planting in District 4, has resigned from the Service to take up forest work and farming in Pennsylvania. Mr. Fetherolf entered the Service in 1906, and his departure is the cause of very sincere regret to his fellow workers.

In a shooting match recently held in France between English, French, Canadian, and American soldiers, Lieutenant Homer Youngs, formerly grazing examiner in this District, carried off the honors. Out of a possible 48 points, Lieutenant Youngs made 47 hits, while his nearest competitor made 44. He has recently been placed in charge of an Intelligence Squad whose duty it is to patrol No-Man's-Land at the battle front.

District 5

At a meeting of the California Section of the Society of American Foresters, held in San Francisco on March 8, Forest Examiner Stuart B. Show told what has been accomplished by the Experiment Stations in forest research. The results of the first measurements of the permanent sample plots on timber sale areas, said Mr. Show, have demonstrated that our present marking rules fail to take into account the importance of site quality. The rate of growth on almost the entire east slope of the Sierras, for example, is so low as to make forest management unprofitable, while on the west slope a rate of interest, expressed as volume growth, of 5 or 6 per cent per annum can be secured on the better sites. Our present marking practice, Mr. Show thinks, considers requirements of the lumbermen to too great an extent, in that we are probably cutting a great deal of young and thrifty timber which would yield a highly profitable rate of interest if it were reserved. A revision of present marking rules to take into account site quality as well as type of timber would seem, therefore, to be highly desirable.

The various Federal, State, and business organizations of California have become convinced of the necessity of a powerful campaign for the prevention of warehouse, grass, grain, and timber fires. In pursuance of this object, District 5 is now organizing and training an "Arson Squad," the duty of which will be primarily the prevention of such fires and the enforcement of our laws against them. Messrs. Hill and Hammatt are in charge of this organization.

The project for the development of power on the North Fork of the Feather River by a combination of the sites applied for by the Oro Electric Corporation and the Great Western Power Company was taken up in Washington by D.M. Folsom, U. S. Petroleum Administrator for the Pacific Coast, and received favorable endorsement from the Secretaries of the Treasury, Navy, Interior and Commerce and Labor, also from the Forest Service and Geological Survey.

Mr. E. N. Munns, formerly in charge of the Converse Experiment Station, who has been in Washington for some time engaged in research work, will remain there permanently. Mr. Show will take charge of the planting in Southern California and work up cooperation with the University of California and the Del Rosa Arboretum.

Supervisor Ayres of the Stanislaus is going to make a serious attempt to handle the timber sale work this summer without a forest examiner or special timber sale man. He plans to use his rangers in this work and to give marking and supervision a good deal of personal attention. This looks like a large proposition for Brer Ayres, but we are all backing him to get away with it.

The State Horticultural Commission will hold a conference at Fresno on March 18 and 19, at which will be present all County Horticultural Commissioners, representatives of the Biological Survey and the Forest Service, for the purpose of discussing rodent control work. Assistant District Forester C. E. Rachford will present a paper.

A little romance was injected into the monotony of District Office existence recently, when Mr. John C. Wells, formerly Supervisor of the Stanislaus National Forest, who enjoys the distinction of being the oldest Forest Service man in District 5, discovered, through a peculiar chain of circumstances, that far from being alone in the world, as he had for years supposed, he not only had a sister living in San Jose, whom he had not seen for nearly fifty-five years, but that Major-General Arthur Murray, Commander of the Western Division of the U. S. Army, is his nephew. As soon as Mr. Wells' sister can wind up her business affairs elsewhere, she will join him in this city.

Miss Dorothy Alden, a writer of movie scenarios for William S. Hart and others, was in the office recently in regard to the possibility of writing up scenarios that will bring in features of National Forest work, possibly Forest officers, permittees, quaint characters, etc., with particular reference to the spectacular and "human interest" side of the work. Miss Alden is now in Hollywood, near Los Angeles, where she will get in touch with Supervisor Charlton and Forest Ranger Sloan.

OM
Equipment & Supplies
Ration Lists

No more fire-fighters' eyes light up when summoned to their chow, for these are not the good old times--they're Hooverizing now. "Alas," they sigh, "in former years (it comes to us in dreams) we'd oranges and nuts galore, and Carrigan's chocolate creams. We'd peanut butter on our bread, and loganberry jam, while now we're lucky if we get hardtack and mulligan." The word has come from Washington to can the flossy diet, if we want pate de foi gras we have to go and buy it."

District 6

Assistant Director O. M. Butler and Dry-Kiln Specialist H. D. Tiemann, of the Forest Products Laboratory, Madison, Wisconsin, arrived in Portland this week to assist in the installation of dry kilns at the new Government cut-up plant at Vancouver, Washington.

The District Forester is advertising one million feet of western yellow pine and five hundred thousand feet of Douglas fir and other species for sale at the minimum price of $2.75 for the pine and $1.50 for the other species. The timber stands on a 400-acre tract on the Summit Creek watershed on the Minam National Forest.

Lieutenant V. H. Braunig, who for the past month has made his headquarters in the District Office, has finished his work in Portland and gone to Seattle. While here he recruited 300 men for the Thirty-seventh Engineers, a regiment to be made up exclusively of electrical and mechanical men.

Final plans have been completed for the Forest road on the south side of Lake Quinault on the Olympic, over which to bring out airplane spruce. These plans provide for an extra heavy base and surfacing, on account of the unusual traffic which the road must bear. The estimated cost of the road, which is 1.9 miles long, is $29,164.05.

The District Women's Service Committee, in accordance with instructions from Washington, has discontinued the knitting of sweaters and will turn its attention to knitting socks as soon as a supply of yarn which has been ordered arrives. Knitters for four dozen pairs of socks have already offered their services in Portland. It is expected a good many more will be furnished from the Forests.

District 7

A box of knitted articles, including sweaters, wristlets and socks, has been received from Supervisor Rush of the Wichita for distribution among the Forest Regiments in France. Supervisor Rush isn't too busy with his buffalo not to remember the needs of the boys "over there."

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

April 1, 1918.

Special Grazing Rules

In taking account of what the Forest Service has done toward cooperating with stockmen to improve grazing conditions, it is interesting to review the development of the so-called "special rules" for grazing in the National Forests. In the beginning, as a means of protecting the ranges and securing a better disposition of the cattle, we required the stockmen to salt their stock during the grazing season. Enforcement of this regulation, in which we at first experienced considerable difficulty, was materially aided by the advisory boards of the local stock associations, and today everything is going along swimmingly. The associations purchase the salt and see that it is placed upon the range at such points as the supervisors direct. The cost is assessed on a pro rata basis against the users of the range involved, whether members of the association or not. Failure to pay these assessments results in loss of permit. By purchasing the salt in large quantities the lowest price is obtained, while the distribution is carried out much more economically and efficiently than whe each user handled the matter for himself.

The success of this rule caused the stockmen to request special rules regarding the construction of drift fences to keep the stock from scattering to widely. These, too, worked out well. One drift fence in District 3 built under a special rule cost the stock association concerned over $10,000, yet not a single kick has been received from a permittee. Following these came the rule requiring employment of herders to look after the stock on the range. The association concerned furnishes the herder and assesses each member his pro rata share of the cost.

This class of rules we consider protective in their nature, since the benefit the range, improve grazing conditions, and assist materially in the general administration of the Forests. Later on, however, the stockmen began to ask for the approval of rules that are meant primarily to improve conditions i the stock industry itself. Among the first of such rules to be approved was that dealing with the use of pure bred bulls. We began very carefully by appr ing the use of pure bred or registered bulls only in states where the law requires that class of animals. The benefits to the stockmen were so great, however, and the economic importance to the nation so apparent, that we have gra ually extended the rule to states where the laws do not clearly require pure b breeding animals. This, of course, is done only when a large majority of the stockmen request it and we know public sentiment is behind us. Not only are we requiring the use of pure bred or registered bulls, but are even allowing the stockmen to dictate the kind or breed of bulls to be used. For example, some associations prohibit Holsteins, Jerseys, or dairy breeds; others call for Herefords only, etc. Special rules of this kind have been approved for a large number of associations, yet the number of objections to their strict enforcement has been practically negligible.

Recently a special rule has laid an assessment as high as 15 cents pe head on all stock grazed on a certain range in order to provide funds for clea ing the locality of larkspur and other poisonous plants. Another rule refers the requirement that stock which die on the range must be buried or burned. If a carcass is not buried by the owner within a reasonable time after notific tion by the Supervisor under the special rule, the work is done by the association and the cost collected by it from the owner. Another rule calls for the dehorning of cattle on certain ranges, and still another requires the vaccination of every animal between 6 and 18 months of age.

Some of these latter rules have been approved by the Washington office only after considerable hesitation. Not that they are of doubtful benefit to the stockmen, but rather because some might be very difficult to enforce. The point to be considered in the establishment of special rules is their justification from the standpoint of range protection, efficient administration of the Forests, or economic benefits. They should not be permitted to force what might seem to be fads or experiments of doubtful value upon range users. That the present special rules, so far as they have been applied, do not fall within this latter category is best demonstrated by the almost unanimous approval with which the stockmen have received them.

WILL C. BARNES.

Legislation

The Senate has passed a bill empowering the Government to commandeer timber for war uses. An amendment, offered by Senator Frelinghuysan of New Jersey and unanimously adopted, stipulates that should it become necessary for the Government to commandeer timber on either Government or private lands, all operations shall be conducted under rules prescribed by the Forest Service. It is expected that the House, should it also pass the bill, will agree to this amendment.

The Urgent Deficiency Bill, carrying $775,000 for the Forest Service, has passed both houses of Congress and been signed by the President. This ensures that everybody on the miscellaneous roll will receive his pay when it is due. But the money comes just in time, for the Service was mighty near broke.

In connection with the Agricultural Appropriation Bill, which is to go to conference, the Secretary has written to Chairman Lever of the House Agricultural Committee asking him to endeavor to get the Senate to recede from its unfavorable action on the provision for motor vehicle mileage reimbursement.

Acquisition Work Starts Up

The field season for Acquisition survey work has begun in the Southern Appalachians. Some 65,000 acres were approved for purchase on December 12, 1917, and about an equal amount on March 6, 1918, so that the surveyors will have to hustle to get the descriptions in the hands of the Solicitor within six months after the date of approval, which is the set standard.

The largest survey will be of the W. M. Ritter Lumber Company holdings of 37,928 acres in the Nantahala and Savannah Areas, and will be made by Examiners of Surveys J. W. Fox and W. N. Sloan, who have already commenced work. Mr. Fox will first establish the location of a portion of the North Carolina-Georgia State line, which has always been in dispute. Forest Examiner Rudolph Dieffenbach, in Charge of Surveys, is with Mr. Fox and hopes to find the long-lost stone marker called for as being on top of the Blue Ridge, west of the Tennessee River.

Examiner of Surveys E. R. Conrad has resumed work on the survey of the Highland Development Company holdings of 35,079 acres in the Shenandoah Area, which was suspended last December on account of the deep snow.

Some difficulty is being experienced in getting men for the survey work, on account of war conditions.

Climatological Stuff

The State of Washington went dry a couple of years back, but not so the Wind River Experiment Station. During one 24-hour period in December, Forest Examiner J. V. Hoffman reports, the rainfall there amounted to 5.87 inches. In January the total precipitation was 14.94 inches, and in February 13.84 inches. The former month sported 8 clear days, but the latter could show only 4. Gosh! How the boys must use up rubbers!

Leave to Print

While the Weekly Bulletin has certainly come to stay, it is still in the formative stage. Mimeographing was adopted at first as a temporary measure while we were finding out whether the Bulletin would prove to be worth while. That our venture was both welcome and useful was made entirely clear when the views of the field force were sought. Nevertheless, our chick is still awaiting a-hatching. At least, that is how the editors feel about it.

We want a printed Bulletin. Until we attain to the dignity of printer's type our Forest Service house-organ can not, we believe, really show what its possibilities are. Possibly our readers will be tempted to say at this point that we are already dignified enough; why threaten worse? But it is not really dignity that we want. We want room for more material. Even a small four-page sheet) the form that we have in view) would hold considerably more than has ever yet gone into an issue.

To be sure, some of our readers think the Bulletin is too long as it is. "Its length should be limited to four pages," writes one man. "Not over five pages," says another, "since we feel that as soon as it begins to acquire bulk it will lose its vitality." As one friend points out with obvious truthfulness; "If the Bulletin is too long it takes too much time to read it. Consequently it will not be read." "Some of the rangers feel that the Bulletin contains some items in which they are not interested," runs still another letter. "Oftentimes they are so rushed that it is necessary either to glance through the Bulletin or lay it aside for later reading." It is like the meals of the man who said he had never missed one, but several had been greatly postponed. Whether the appetite is proportionate to the delay our correspondent saith not, but we doubt if the suffering has ever been acute. Why, then, a longer Bulletin?

Because our readers' views have shown that there are many kinds of interests to be taken account of. The suggestions made are often contradictory. "We people located three thousand miles away from Washington are more interested in the status of forestry affairs in Washington than in our local districts," a ranger writes - but another says: "I think the Weekly Bulletin is not long enough. It should contain news from all the Districts ('ten-shun! One and Four) as well as news from the front." A Forest Supervisor in California writes: "I believe the Bulletin could be improved by giving lots of personal items, war news and legislative action." Along the same line was this, from a Colorado Forest:

> " * * Hence our craving, a small-town perquisite, for the lighter forms of gossip in the Service. Personally I do not desire heavy material in the Bulletin. I have access to that in the Journal of Forestry and kindred publications, and my desire is for live items of human interest, of the happenings of the Service. * * Please do not turn it into a medium for a technical discussion of forestry problems; we are oversupplied with publications and Departmental bulletins of that character now."

On the other hand, A Montana Supervisor writes:

> "I would suggest including, for instance, information on all important timber sales made, with description and stumpage prices; description and detailed costs of important and interesting improvement projects completed; representative cost figures from various Forests on various Forest activities; administrative suggestions and hints; description of new equipment which is being tried out; results of planting on the various Forests, etc.
>
> "The point is that at present the Supervisors have little opportunity of comparing the success of their administration with other Forests. We need more definite standards of comparison particularly in the way of cost figures. I should like to know, for instance, how timber sale costs on my Forest compare with other similar Forests; whether a tree

telephone line on the Lolo through yellow pine country is costing more or less than on other Forests; if our planting costs are, say $6 per thousand and we get 75 per cent success. I would like to know whether other Forests are doing better or worse.

"Under present conditions we are getting very little comparative information of any kind and each Forest is practically playing a 'lone hand.' It is possible a good deal of this information might better be sent out by the District offices, but we ought to have it in some form either from the District or the Washington office."

Now what is the answer? That the Bulletin, to do its best for you all, must aim to be inclusive. One man wants one thing, another another. We must take a lesson from the newspapers, which aim to have something of interest for everybody. Not that we are quite ready to start a sporting page, a religious page, a woman's department, and a serial story. But we do want to know more about our readers' points of view. Especially do we want this in the form of contributions.

We can not strike for print until we are sure of having enough each week to fill the pages. And of course, what we have must be good. In asking for contributions we must reserve the right, in the interest of our readers, to select only what has real justification for handing along. But we haven't, we are certain, begun to tap the reservoir of good material that the Service furnishes.

We would like to have a "letterbox," with brief, snappy contributions from the field. We also want the equivalent of an exchange column into which can go items from the Forest magazines, etc. And by the way, we should have a copy of every such magazine or news-letter for our own use. Send an extra one to the Washington Office, marked "For Weekly Bulletin Editor."

If the Service will do its share, the Bulletin will have leave to print in short order.

We close with a word of cheer contributed from the Durango Forest:

> "The Ranger is of a peculiar species, inhabiting the higher ranges of the Forest, as a rule he belongs to the nontechnical great unwashed, if your Bulletin can bridge the gulf and bring the what you do and why to him, I believe you will find a hearty response.
>
> "To the man out beyond the last ranch, where the snow gets deep, and the winter seems long, with mail perhaps once or twice per month, the Bulletin is not too long. So go to it, old boy. Here's one Ranger that's with you."

Washington Office Notes

Paul D. Kelleter, Supervisor of the Black Hills National Forest, will succeed John S. Cobbs, Jr. in charge of Information. Mr. Kelleter is due in Washington to take up his new work early in April. He will be succeeded on the Black Hills by George A. Duthie, at present Supervisor of the Harney. For the time being the administration of the Harney will be under Deputy Supervisor James F. Conner.

Raphael Zon left on March 27 for a four weeks' field trip in the West.

K. M. Clark is back from Maine, where he went in company with E. D. Fletcher to make a survey of the spruce supply. He reports that field work in New England is practically completed.

S. T. Dana is in New England for the purpose of reviewing the spruce supply and wood fuel work.

George N. Lamb and F. S. Baker have started out to get a line on the walnut supply. Mr. Lamb's trip will carry him mainly to Kentucky, while Mr. Baker will look over Ohio, Indiana, and Missouri. Both will also give the hickory supply some attention.

The drive for the Third Liberty Loan will start April 6. Claude M. Ballard will "ride herd" on the Washington office end, and he announces that he is out to make a record. The sale of Thrift and War Savings Stamps will go on just the same. Up to the present Mr. Ballard has disposed of something like $1,400 worth of stamps. This isn't so bad, but at that it doesn't represent all the stamps that members of the Washington office have bought. A number buy stamps outside, at times when they have two bits, or possibly $4.15, and are afraid that the money will get away from them if they fail to act promptly.

Chief of Accounts F. E. Fagan is back from a week's visit to the Madison Laboratory, where he went to look into fiscal matters. On his way home Mr. Fagan was permitted to go through a factory at Detroit that is making Liberty motors. In October the land occupied by the plant was an open field. At present there is a main building of three stories, constructed of cement, glass, and steel, 960 feet long and 200 feet wide, surrounded by administration, storage, testing, and other auxiliary buildings. Practically all the machinery is installed and part of it is in operation. Some 10,000 women are being trained as workers, and are proving very satisfactory mechanics. Mr. Fagan saw the entire process of manufacture, from the time the raw material is received until the finished engine is turned out. Every engine is tested for 50 hours before being pronounced perfect.

Our service flag was displayed on the front of the Atlantic Building for the first time on March 28. It bears 257 stars, 255 blue and 2 gold. The latter represent Stanley R. Augspurger and Roy Muncaster, members of the Twentieth Engineers, who lost their lives on the Tuscania.

Lumbermen's Welfare Fund Committee Meets

On March 26 a meeting was held in New York of the committee in charge of the "Welfare Fund for Lumbermen and Foresters in War Service." The representatives of the Forest Service at the meeting were the Associate Forester and Herbert A. Smith. The treasurer's report showed a total of approximately $13,200 contributed, of which the Forest Service contributions were about $1,400. This does not include the $2,800 expended by the Service for ambulances and kitchen trailers.

The principal expenditures have been: For wool, about $4,000; for a canteen fund for the 20th Engineers, $1,000; and for the 10th and 20th, put into the hands of Colonel Mitchell for use in France, $3,000.

Following a statement of the knitting situation, the committee appropriated $500 more for the purchase of sock wool, and showed an attitude favorable to the continuance of this work indefinitely. Plans were discussed for a more thorough-going canvass of those engaged in the lumber industry, either as manufacturers or as distributors. It was felt that a large fund should be raised. It was brought out that because of the fact that relatively small detachments of the Forest Regiments are working in isolated places, neither the Red Cross nor the Y. M. C. A. can do for those men many of the things which are done for other troops. If, however, sufficient funds are available special arrangements can be made with the Red Cross and Y. M. C. A. for extending their work to meet the conditions.

(From District 2 Bulletin)

RECEIPT FOR COOKING A PORCUPINE

Hog dress the Porky. Put him in a large boiler and boil 9 hours, keeping the "skimmings" well drained off; take him out and cool him off. Tack him to a soft white pine board and put board and Porky in the oven and bake until brown. Throw the Porky away and eat the board.

The Crisis

"The loved ones of our very blood
Are there in all that rain of shell,
Are there in all that frightful flood,
In all that vivid battle-hell -
And yet back here we chatter on
And quarrel for nothing, splitting hairs,
Debate and wrangle, dawn to dawn,
And shoot our shells from swivel-chairs;
Bring politics to cloud the fact
That over all the hour has come
When we must clench our fists and act -
Right now the bugle and the drum
Call for the strength and for the might
Of all that we can bring and give
That yonder in that world-wide fight
The freedom of the world may live."

(Exchange)

Forest Products Laboratory

The Laboratory staff has recently developed a device for testing airplane wing ribs under conditions of loading closely approximating those to which they are subjected during flight. Wing ribs give airplane wings their curved form, and over them the fabric wing covering is stretched. An average rib is about 6 feet long and about 5 inches deep at the point of maximum depth. Ribs are blunt at the front or leading edge, tapering to a fine point at the back or trailing edge. They are normally spaced about 14 inches apart along the wing beams, of which there are usually two. These beams run parallel to the length of the wing, and transmit the loads from the wing ribs through the bracing system to the body of the airplane. The loads are caused by the wind pressure acting upon the plane, and are the source of support of the plane in the air.

These pressures act in a peculiar way, in that the upward suction on the top of the wing is normally much greater than the upward pressure on the bottom. Furthermore, the total upward pressure or lift is not distributed uniformly throughout the width of the wing, i. e., along the length of the rib, but is greatest near the leading edge or front of the rib and falls rapidly to zero at the trailing edge or rear of the rib.

The device consists essentially of two parts: a support and a straining mechanism. The support is a framework so constructed that the rib under test is held firmly upon a pair of dummy wing beams similar to the beams of an airplane. The straining device consists of a system of compound levers by which the load or pull is distributed to eight points on the rib. These eight points are so spaced, and the loads applied at them are so adjusted by regulation of the lever arms, that the resultant loading is a very good imitation of actual flying conditions. The completed lever system resembles in a general way a four-horse evener or whiffletree. Preliminary tests made with this jig have already shown how certain designs of wing ribs could be improved.

District 2

With a force of six men, including one stenciler, one carpenter, and one painter, all Forest officers, and three student or nonprofessional letterers, the official sign shop in Denver during the first nineteen days in March made up for lettering 1,676 board feet of improvement signs, while the letterers turned out 2,068 board feet of completed signs. This is said to equal two-thirds of the entire output of the 1917 shop, including seven men and working practically four months.

With a view to stimulating tree planting in the plains region of eastern Colorado, 30,000 yellow and jack pine transplants, purchased from the Bessey nursery at cost, are being sold by the State Forester of Colorado to individuals at the cost of handling the sales.

Fourty-four binoculars and ten monoculars are available on the Forests in District 2 for the use of the navy department. As soon as the instruments can be gathered together they will be forwarded to Washington.

D. D. Bronson of the Washington office was a visitor in the Denver office last week on allotment estimate work.

District 3

A cooperative agreement has been entered into between the Forest Service and the Bureau of Plant Industry providing that Dr. Long is to use the Tejano Ranger Station on the Manzano for conducting experiments in plant pathology to secure data for combating mistletoe. The administrative control of the property is in the hands of the Bureau of Plant Industry during the continuance of the agreement.

This office is in receipt of a letter from a contractor in northern New Mexico, whose letterhead describes him as a "Dirt Disturber." We hope this is not synonymous with "Muck Raker."

A resolution urging Congress to pass the National Game Refuge Bill was unanimously adopted by the New Mexico Cattle and Horse Growers' Association at its recent meeting in Las Vegas. It was urged further that, if the bill is not passed, the Legislature at its next session enact a three-year closed season on deer as an emergency measure. The Association goes on record against the further introduction of elk into the State except on fenced private lands.

The popular misuse of the name Forest Reserves for National Forests should be combated by every Forest officer. It implies a fundamental misconception of Forest Service policy, and is an echo of the old idea that "conservation" is synonymous with "locking up" rather than with "highest use." The use of the term in the press should in particular be discouraged.

In reply to circular letter No. 84 of March 2, concerning alien permittees, a ranger on the Crook felt so strongly on the subject that he broke into poetry, as follows:

"The range is good and wholesome
Down here on District Five,
And you know the alien enemy
On such can not survive.
I don't know of an alien
Grazing stock on District Five;
There used to be a German,
But now he ain't alive."

Undeniably one of the important events of a man's life is his birth. Incidentally it is interesting to others - such as his parents and his parents' friends. It is the latter we are thinking about. In brief, we wish to start a Department of Vital Statistics in this District. Whenever a brand new, diminutive Ranger of either sex appears in this vale of forest fires and high cost of living, we wish to celebrate the accomplishment with an announcement, and to point it out as an added proof of the Forest Ranger's motto of making two trees grow where only one grew heretofore.

A branch of the Federal Employees Union was established in Tucson on the tenth day of February, with thirty-one charter members.

If the price of forage keeps on climbing, we expect to solve the difficulty by having one oatless day per week and one hayless meal per day for old Dobbin. However, this has not yet been officially adopted as the basis for the allotment estimates.

District 5

It has been suggested by Mr. Hammatt, in connection with the coming campaign against fire, to print on the Weekly Crop Bulletins, issued by the Weather Bureau, brief sentences and paragraphs intended to warn the public against causing or allowing fires that may prove damaging to crops, stored grain, pastures, provisions, stock, forests, etc.

The Cleveland has broken another record in the endurance of her fire-fighting Forest Guards. A diary entry of one of them reads as follows: "September 8, 1917; fire suppression, Palomar District, 25 hours."

Rangers Boulden and Browning of the Cleveland have devised a new and greatly simplified heliograph code, which has been used with remarkable success on the Cleveland during the past season. This code, briefly, divides the alphabet into groups of letters, and designates each group by one long flash and a given letter by a number of short flashes corresponding to its number within the group; thus C would be one long flash and three short ones. It is found possible for a green man to learn the system so that he can begin using it within an hour. With this system, it is believed that the usefulness of the Godwin simplified model of the heliograph will be greatly increased.

Forest Examiner Show is on the Angeles engaged in completing the planting of conifers at the Converse Experiment Station at the head of the Santa Ana River and the enlargement of the Del Rosa Arboretum near San Bernardino. This arboretum now contains 30 species of eucalyptus, and the additions to be made this spring consist of rare varieties, the seed of which was obtained from Australia.

Assistant Forester Carter spent March 18 and 19 in this office. We kept him very busy while here, and straightened out our ideas on a large number of points that had been bothering us in connection with our increasing sale business.

We find that there seems to be a general feeling among Supervisors that timber sale operators, having passed through the educational period, can now be expected to comply satisfactorily with the terms of their contracts without such close and expensive supervision as we have been giving in the past. This idea seems reasonable to us, and we are going to try it this season. Operators will be informed that no donkey engines can be operated unless they are equipped with Sequoia or South Bend spark arresters, or unless the necessary clearing around them has been done and other fire preventive measures have been taken. Also, we shall penalize more frequently for damage done by careless logging or felling. It is thought that in putting this policy into effect on the Plumas Forest, one forest examiner, with a little assistance from the scalers, will be able to supervise eight or ten good sized sales.

The California White and Sugar Pine Manufacturers' Association has recently agreed to furnish a carload of white fir logs for testing at the Madison Laboratory. The logs furnished will be butt cuts of the best quality of white fir, such as would be suitable for airplane construction if the tests justify the use of this species.

An extract from a letter written to a prospective member of the "Arson Squad" gives a very complete idea of its aims and purposes: "Members of the "Squad" will be called to San Francisco for a week's conference, beginning at 9 a.m. Monday, April 1. ***Careful consideration of individual cases will form a considerable part of the conference work. After the conference the members of the squad will be assigned to cover the various Forests of the District, passing on to the District Rangers such information, knowledge, and experience as is theirs. When this training is finished, certain members of the squad will be assigned to some two or three Forests, to assist in working up evidence and securing information on violations of the State and Federal fire laws. Only a few of the Arson Squad will be chosen for this latter assignment which, by the way, will offer an excellent opportunity for the men to broaden their experience, get acquainted with new territory, and match their wits and judgment against those of others."

Land classification work is practically completed in District 5, and settlement applications are now accepted only under very special conditions.

Miss Dorothy Alden, the scenario writer, will visit the Laguna tract on the Cleveland on March 27, accompanied by Forest Supervisor Tillotson and other members of the Service.

Mr. Robert C. Bruce of New York, representing the Educational Films Corporation of America, called a few days ago and conferred with Mr. Hammatt as to the best method of obtaining views of logging operations. He will obtain some pictures of bigwheel logging around Mount Shasta, of high line logging at the Weed Lumber Company's plant, and of redwood logging around Eureka. He will also get films of lumber flumes near Sanger and of the country in the Yosemite Valley.

Telephone Engineer F. H. Hafley returned to the District Office March 9, having spent twelve of the last thirteen months in the field.

The County Horticultural Commissioners of the State held a meeting at Fresno on March 18 to discuss the problem of rodent control. It was proposed to hold a "squirrel week," by proclamation of the Governor, for the eradication of squirrels and other rodents, and to offer three prizes to high and three to grammar schools, to the amounts of $30, $20, and $10, for the pupils bringing in the largest number of squirrel tails.

The Food Administration has issued a call to all stockmen of the State to organize themselves into an association through which the Food Administration can deal on all matters relating to the production of live stock. A series of meetings has been arranged from April 8 to about May 20.

It has been suggested that our District adopt a Belgian or French orphan. The cost of maintaining these poor little mites is something like twenty dollars a month, which could be raised--at a very rough estimate--by having each member of the Service contribute a nickel a month. For that matter, why shouldn't each District have a baby?

Is it quite kind or right to publish "for daws to peck at" the poor, pathetic scrawls of our illiterate permittees? They are not funny; indeed, when one reads between the lines the dreary, hopeless, monotonous lives of the writers, one feels more inclined to tears than laughter.

A RANGER'S PARADISE

(Contributed by Mrs. R. F. Hammatt)

Where
  Campers cheerfully cooperate,
  Hunters help hooverize,
  Cowmen conserve,
  Sheepmen surely save
    Fuel, feed, and forage
      from fire.

District 6

The Forester arrived in Portland from District 1 on March 20 for a 10-day stay in District 6. His program while in Portland includes talks before the Portland section of the Society of American Foresters, a talk to members of the District Office, an address to the University Club, and an address at the Portland Public Library under the auspices of the parents, relatives, and friends of the men enlisted in the Tenth and Twentieth Regiments.

At the annual meeting of the Portland section, Society of American Foresters, March 22, M. L. Merritt was elected chairman; A. G. Jackson, Secretary-Treasurer; and B. P. Kirkland, member of the Executive Committee.

A. E. Doyle, an architect of Portland, visited Eagle Creek Camp Grounds Monday to examine the site for a permanent ranger station. He has since submitted plans for a building suitable for use of the ranger in charge of the camp and picnicking grounds. Mr. Doyle's desire for a building in harmony with the attractive surroundings at Eagle Creek prompted him to furnish the plans at no cost to the Service.

Assistant District Forester Mackenzie went to Dayton, Wash., last week to assist Game Wardens Wales and Patrick in planting 140,000 eastern brook trout in the Touchet River, on the Wenaha National Forest. The fry came from the State hatchery at Spokane and were placed in the stream with very small loss. Transportation was by auto truck and wagon. Ranger Kendall, of the Wenaha, assisted.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

April 8, 1918.

A Way To Help

Who is not eager to have a part in the big fight? Without the shadow of a doubt every one of us is. We are glad whenever we can feel that we are not wholly out of the game. In point of fact there is not only a great deal that we can do - the great cause cannot succeed without the energetic support and backing of all Americans.

In a recent circular letter to Supervisors, District Forester Cecil quotes as follows from a letter received from Lieutenant W. H. Gibbons:

"If it is not in poor taste, I would like to suggest at this time that all of you write all of these men often, and that you pass the word along to all your friends that they should write all their soldier friends often. I don't know just why it is, but I do know it is a fact that the American out here is a big baby when he is not receiving what he considers his proper ration of mail, and he is a mighty hungry fellow when it comes to mail. I can suggest no better way for you to help win the fight. I am not thinking particularly of myself and those who are serving in a similar capacity - and we find letters from friends ever so much better than heat, meat, and drink - but of those who will face the Hun at short quarters. Organize as you will, we are going to fight as individuals, and no American boy will put up his best fight if he feels that the folks back home have forgotten him, and he is too prone to imagine such things. If it were within my power, every paper in the U. S. A. would feature every day 'Write.' These letters will not only help them to fight, but they will help keep them straight and ready. I feel truly sorry for the poor devils that receive no mail. I hope there are none such."

District Forester Cecil then goes on to say:

"Similar word comes from other sources, although Mr. Gibbon's personal statement has expressed the matter so well that little more need be said. Shall we not do our part to help the boys at the front? Certainly it is an easy thing to do. Let us show them that the home folks have not forgotten them, but that we are backing them up every day of the time. I hope that every Forest Service boy in military service may receive at least one letter every two weeks--oftener if possible--from some Forest Service friend.

"In order to check up on this matter, I wish you would canvass your force and see if you can secure volunteers (not relatives, for these will probably write anyway) who will agree to write to each man who has entered military service from your Forest at least once every two weeks throughout their period of service, or provide a substitute who will do this, and send the names to us so that we may be sure no one is missed. Let's show the boys at the front that the Forest Service in District 6 is proud of them and solidly at their backs!"

Here is something for everybody to take to heart and ponder over. It is a part of our task to take every means that comes to hand for sustaining the morale of those on the other side, by making them feel they have us back of them, interested in them, and working for them. The Forest Regiments need this especially. They are having to hold up their end without the excitement of being in the thick of the fight. Their work is absolutely essential, but it is not spectacular. We must not let them feel they are forgotten, any of them, if there is anything we can do to prevent it.

Keeping up the morale of our soldiers is just as important as furnishing them guns to shoot with. It is all part of the great game of war, a game that we must play better than it has ever been played before if the Prussian beast is to be destroyed. This is the chance for those of us who stay at home to do little things that will have a big effect in bringing final victory.

The following part of a letter from France reproduced in the District 1 Weekly Bulletin illustrates what was said above about the isolation of the Forest Regiments from war activities:

"As to the war proper, you hear more of that than we do. All we see are men and munitions going to one small sector, and only hear that the Americans are doing fine. The French Nation sure depend on us to finish the job for them--to hear the soldiers talk--and guess we'll do it."

(Pvt. Helmuch Bay, Co. C., 5th Battalion,
20th Engineers.)

The letter contained also the following passages:

"We're located in a small burg of about 3,000--a little muddy place, with stone and plaster buildings--and the people have treated us royally so far."

"France reminds me of a large park. The fields are for the most part small, and bounded by small hedges or dirt embankments. The woodlots are nearly all results of reforestation, with neat rows of trees, on a clean ground cover. There is practically no waste land, and it is easy to see how intensively farming is done. On the other hand, much is lacking in the way of public improvements such as sewers, lights, and transportation. There is where one misses the U. S. most keenly, and you hear very little talk from any one of wanting to stay here after the war."

THE EDITORS.

What We Are Shooting At

There is no use in firing fast if the shots go wild. Neither is there much practical point in hitting the mark unless it is the right mark. The editors of the Weekly Bulletin pull the trigger once a week, but where does the bullet land?

We are too far away from the target to be able to mark the shots. Nor can the Washington Office hope to make the Bulletin what it is intended to be without the help of the Districts and especially the Forests. We want everybody in the game. Our house organ must be a product that represents the best thought and effort of all. Readers, don't be consumers merely. Cooperate--which means, work with us, to the end that the Bulletin may be what it should be, about the most valuable means of promoting team work and mutual understanding that the Service has ever developed.

Our readers must not only help us sight the gun, but also supply ammunition to load it. News, views, anything that may have general interest or that may help the Service understand itself.

It has been made clear that many of us, and perhaps those farthest away most of all, feel we lack common touch, unity, and close-knit organization. The Forest Service seems more like a mechanism than a living organism, to those who carry out and apply its policies. Witness the following from Ranger William J. Paeth of the Washington Forest:

"The work of the Service must become more personal and human. The reason WHY of the work must become clearer in the work itself and not in print. There seems to be a tendency to subvert the normal processes by substituting artificial factors in place of the natural and human. The work of the Service appears to become more machinelike as if the ideal were repetition after one pattern and we wanted to pour all our work into one mold, with no definite plan for the self-expression of the human elements of the personal man.

"Red tape has its uses but it should aim to protect and should never become destructive to the human elements and this is exactly what seems to be in danger of happening. Organization should aim at team work and a democracy of effort. * * The purely human elements can have free play only in team work and in service to others.

"The Weekly Bulletin is a step in the right direction in providing a vehicle for the expression of the human elements and opening up a channel of communication from the highest to the lowest. * *

"The problem is not one of eliminating red tape or of adding to it, but lies rather in correcting our attitude towards it. * * To achieve a democracy of effort and team work in purposes in the work of the Forest Service is a

problem too great for a paper solution. It is only by working it out and seeing our individual growth and progress in our work that this result can be attained. If the Weekly Bulletin can help to discover the proper place for the individual in his work and give him the pleasure of finding himself in his work, the Bulletin will have accomplished something that appears to be impossible to the Manual."

Along the same line is the following from Deputy Supervisor Robert L. Campbell, also of the Washington Forest:

"The District Office plan, despite its advantages, has encouraged a situation in which it is very difficult, and at times impossible, for the Forest Ranger, whose attitude should be the personal concern of the Forester, to lay it before him, frankly and fearlessly, in the spirit of true democracy. Hitherto, the Forester on his part has not established a direct contact with the Ranger which would cause him to feel that he is really something more than a modern Atlas supporting an organization which has very little regard for his spiritual or material welfare, but in which he should have a common interest."

To give opportunity and encouragement for the expression of the ideas of our readers, regarding the Bulletin or any other part of the work of the Service, it is proposed to open a "Letter Box." In this will be included extracts from individual letters or contributions from our readers. The necessity for exceeding brevity will probably compel, as a rule, a selection by the editors of the most significant quotations rather than the use of letters in full. The names of the writers will be given unless a preference is expressed that the name should not be used. From letters already received the following quotations are culled:

LETTER BOX

"As the Weekly Bulletin is a 'not for publication' paper, I see no good reason why a liberal discussion of the current topics, how they are handled and by whom, in the Washington Office, could not be included. If this were done, I think it would be interesting and valuable to the field men, and in effect bring the Washington Office and the field men closer together." (Ranger McQueen of the Cache Forest.)

"We receive news and items of interest covering Forest Service activities that we would never learn of from any other source. The District Offices have their regular means of securing such information, but the Forest offices or the Rangers in the field must depend upon getting it from visiting members of the District force. In this respect the Bulletin fills a long felt want and should by all means be continued, as I believe there is no other way in which the spirit of cooperation and sense of being a part in a live, aggressive organization can be so well imparted to the men." (Deputy Forest Supervisor Treen of the Snoqualmie.)

"There are, of course, some minor criticisms on points brought out by individual officers, but it is realized that each person has a distinct personality and what will appeal to one does not appeal to another.

"To men on the Forests it serves to give them a broadened knowledge of work that is being done in different parts of the country and they realize to a much greater extent that they are a part of a wonderful organization all working together with the same end in view, 'the greatest good to the greatest number.'" (Acting Forest Supervisor Wales of the Coronado.)

"Since the District offices were established we have been growing farther and farther from the Washington Office, until finally we felt only distantly related to it, and the first issues of the Weekly Bulletin sort of reminded us that the Washington Office still exists. It seems to me that this is sufficient reason for continuing the Bulletin. It should be remembered that there are men on the Forests just as completely out of touch with current events as any of the men in France. Please remember that though the Bulletin may be a 'rehash more or less' for some District officers, it is news to the field force. Those on the Crater enjoy it and look forward to it." (Forest Supervisor H. D. Foster of the Crater National Forest.)

"Through its pages is the only news we backwoods rangers get of the doings in the Washington Office, and what the Service is doing on Districts other than our own. The Washington Office seems a long way off to me all right, and to get Forest Service news direct from there by a ranger is something to be appreciated; anyhow I think so." (Forest Ranger Don C. LaFont of the Rio Grande National Forest.)

"What is wanted is a touch of the personal element, stuff written in a newsy way, and always a realization on the part of the Editor that while due regard should be given to the dignity and importance of the work of the Service, the men out on the Forests where the bulk of us are located are a bit free and easy with formality and dignity. Maybe that's a hard bill to fill to make the Bulletin popular with the field men, but I think that you get my argument." (Deputy Forest Supervisor Edward P. Ancona of the Coronado National Forest.)

"We 'brush savages' certainly have a very faint idea of what Washington is or what the Service there does, and your Bulletin is not only educational but I believe it knits the Service closer together and should, by all means, be kept up." (Forest Ranger W. G. Newburg of the Coeur D'Alene National Forest.)

Washington Office Notes

E. E. Carter is back from a field trip in the course of which he visited the Halsey plantations. The soil at Halsey is a fine sand, and after experimenting with a number of species, both native and foreign, the choice has narrowed down to western yellow pine and jack pine. The plantations are being extended at the rate of about a section a year.

A recent visitor was Sergeant Mat G. Culley, Company D, 10th Battalion, 20th Engineers, and formerly Forest Ranger in District 3. Sergeant Culley was recently transferred to the 20th Engineers from an infantry regiment at Camp Funston, Kans., after undergoing six months' training.

The Washington office drive for the Third Liberty Loan started out on April 6, under the direction of Claude M. Ballard, assisted by Mrs. Edna F. Crocker, with every indication of setting a record. The first member of the office to register as a liberty bond purchaser was Miss Susie E. Carter. Miss Carter was closely followed by J. C. Nellis, who has the honor of being the first male member of the office to offer his money to Uncle Sam. All told, approximately $7,000 was pledged the first day.

E. H. Frothingham is back from Michigan, where he has been for the last three months on the wood fuel work. He reports that the use of wood for fuel in the State last winter was very extensive and saved the people considerable suffering. A wood fuel organization has been built up there that ought to handle the situation satisfactorily next winter.

E. A. Sherman went to Amherst, Mass. last week to confer with Dr. F. A. Waugh regarding a proposed publication by Dr. Waugh on the recreational uses of the National Forests.

War Brevities

As a result of the appeal by the Allies for more men, it is thought probable that 1,000,000 American troops will be in France by July. Troops are moving through Washington daily. The War Department denies any present intention of calling more than 800,000 men in the second draft.

The Shipping Board announces that 21 vessels, aggregating 166,700 tons, were delivered in March. This is some 30,000 tons under the minimum production set for the month. Chairman Hurley of the Board has expressed dissatisfaction with the slow progress being made in some yards, and urges further efforts toward speeding up.

The United States has purchased 450,000 tons of shipping from Japan. Of this, 150,000 tons will be delivered at once, 100,000 tons between May and December, and the remaining 200,000 tons as built.

The President reviewed a section of the National Army for the first time on April 6, when 12,000 troops from Camp Meade passed before him at Baltimore, Md. The appearance and bearing of the men, who only a few months ago were entirely without military training, excited both wonder and admiration.

The Rt. Hon. and Rt. Rev. Cosmo Gordon Lang, Archbishop of York, England, who has come to impress upon the people of this country the spirit of sacrifice necessary to win the war, spoke last week in Washington and Baltimore. In England, he said, this has been so brought home and accepted by the nation that it has transformed life. People have become selfless. The high ideals with which America is entering into the war can be made effective, he urged, only if those who stay at home put aside every personal interest, give up all else if need be, for the single purpose of bringing about a just and lasting peace by victory.

When the United States entered the war the national debt was less than one billion dollars. The past year has involved expenditures of nine billion dollars for war purposes, of which, however, more than half is loans to the Allies. One-sixth of the total has been raised by taxation, and five-sixths by borrowing through the sale of Liberty Bonds, War Savings Certificates, and other certificates of indebtedness. In comparison with the outlay for the war, the work of building the Panama Canal was a relatively trifling thing. The estimated cost of the Canal complete is only $375,000,000, though it has been building for the last dozen years or so.

The Sound of a Voice That Is Still (Going)

Here is a monologue from the "Depot Bulletin," the house organ of the General Engineer Depot, that has a familiar sound. For the benefit of those who fail to recognize the speaker, we will say that it is none other than Captain G. A. Bentley, sometime Chief of Maintenance and Purchasing Agent of the Forest Service, but just now engaged in buying supplies for the Engineers.

"Outside, please. Central, give me Main 711. Is this B. Luff & Co.?-- I want to talk to the manager -- No! No! I want the manager -- Hello, Ed'. -- Yes - Bentley talking - er - now - I have your bid here on Circular Proposal No. 41144 and I'm certainly surprised that you should have the - er - nerve, y'understand, to bid on this material - I certainly am -- The U. S. Government is payin' me for my time, y'understand and, believe me, I'm not a-goin' to waste any of it on any Sears Roebuck, fly-by-night, curbstone broker outfit like yours - er - that'll bid on anything, y'understand, from shingle nails to baby spankers. Here, Central, don't cut us off! Hello! Hello! Now, as I was sayin' -- What's that? -- Sent you the proposals? -- Sure they did -- Those clerks upstairs'd send proposals to the alligators in Florida if they had their address - yes - sure they would -- But you know, Ed., 's well as I do that you fellows have no business biddin' on this stuff - lemme tell ya -- Take Item 313 f'r instance - You say delivery three weeks -- Now, what I want to know is, where you goin' to get that stuff? -- New York? -- Say, listen Ed. - you can't pick that stuff up in the market - no, y' can't! -- Keufell and Esser, y'understand, want three months on that -- Yes, that's what they do -- Now, if you got it in stock? -- What's that? -- No, I didn't s'pose you had -- Well, now will you tell me how y'expect to make delivery in three weeks when those fellows can't deliver in three months? -- Why, I'm tellin' you, Ed., you people'd bid on pavin' material for the streets of Heaven 'f ya had a chance - yes, ya would - without knowin' where in Hell you was goin' to get it, either -- But, believe me, Ed., you're not goin' to pull that stuff on the U. S. Government - not if I have anything to say about it - no indeed -- I can't do anything for you Ed., but I've told you how it is -- All right, Ed. - very well - no hard feelin's - "

District 1

A letter received from Corp. J. C. DeCamp, of Co. C, 1st Battalion, 20th Engineers, from somewhere in France, states that he has charge of Production Reports. Also supervision of scaling and cruising. The work so far, he reports, places him at the center of logging operations and has been intensely interesting. A bunch from the 10th Engineers visited their camp on Washington's Birthday for a game of ball. The 20th lost 1-0 in a 14 inning game.

C. L. Billings has returned to the District Office after an absence of a month or six weeks on timber survey work in Arkansas.

L. H. Weyl of this office has tendered his resignation. Mr. Weyl will return to his home in Trenton, Neb., to engage in private business.

THE LAST LINE OF DEFENSE

Think once and think twice
Ere you cut a new slice,
And show honor and pluck and good sense;
Bread is blood - Bread is guns -
Bread's our Fort 'gainst the Huns;
Don't destroy the last line of defense.
Copied from a Canadian paper.

District 3

At a recent meeting held in Nogales, Ariz., the Arizona Cattle Growers' Association passed a resolution endorsing the National Forest grazing regulations.

Some one has defined an optimist as a man who builds an addition to a brewery. But is he as great an optimist as the Fire Guard who plans to attend a Fourth of July picnic?

The Apache Lumber Company has begun the construction of a sawmill that will handle the timber the company has purchased on the Fort Apache Indian Reservation and the Apache National Forest. The mill will turn out between 35,000,000 and 40,000,000 feet of lumber annually, representing a combined revenue to the Indian Service and the Forest Service of approximately $100,000 per annum, of which the Forest Service will get about one-third.

What makes us madder than anything else is the man who stands by his country in this crisis all right, but acts as if he were making a great concession.

Ohio State Journal.

District 4

District 4 seems not to have had its full share of credit for what it has done in the way of furnishing sweaters. This district, through its War Gift Association, purchased 65 machine knit sweaters at a cost of $196.50; but no credit whatever was given for these either in the column of sweaters furnished or in that of contributions made. If the proper credit had been given, District 4 would have led in the number of sweaters sent in, or would have been a close second to District 6 in the amount of money contributed for wool.

In addition to the work of knitting sweaters, the ladies in this district have helped in the gauze and bandage rooms of the local Red Cross Society. To date they have made a very creditable showing in having completed 2358 pieces of gauze bandages and 1779 muslin bandages.

(For the oversight to which District 4 here calls attention sincere apologies are made. It was due to the fact that the record of knitting work comprised only the sweaters actually made in the Districts and Washington, while the record of money contributions embraced only funds transmitted to Washington. None the less, the generous contribution of purchased sweaters made by District 4 should have been remembered and due credit given. -- Editors.)

The range management lecture work this season is considered a big success. There were held in Utah sixty-three meetings with an average attendance of 60 people. This is a very high average when the large number of small towns visited is considered, and speaks well for the interest of the stockmen in the topics discussed. A total of about 3,500 people listened to the lectures. The work of advertising was shared with the Service by the county agricultural agents, officers of the Farm Bureaus, and cattlemen's associations. The Bureau of Animal Industry furnished a lecturer, and county agents provided about 850 miles of auto transportation.

Supervisor Blakeslee of the Toiyabe reports that lambs were born in the Forest to seven ewe sheep that had been crossed with deer. A buck deer, it seems,

had mixed with the herd in Wall Canyon for six days. Three of the freaks of nature have died, but the other four are healthy, vigorous, and doing well. They have the characteristics of a deer, ears straight up, and they jump like a deer. The hair is neither woolly nor like that of a deer, but a combination of the two.

Supervisor Mann of the Idaho has inaugurated a new plan of advertising the resources of his Forest. The business men of McCall, Idaho, have guaranteed to take a certain amount of advertising space in the local paper, and he has subscribed from his personal funds for a two-inch double column advertisement, the copy for which is to be changed each week. The first advertisement contains a statement of the number of acres in the Forest and the different kinds of resources contained therein, together with an invitation to the public to make use of them.

District 5

The District Court of the Southern District of California has overruled the motion of the Kern River Company to dismiss the bill to cancel an easement for irrigation under the Act of March 4, 1891. The grant has never been used for irrigation purposes, but has been devoted to power uses since 1905. A few days before this decision, Judge Neterer, sitting in the Northern District, canceled an irrigation grant to the Alpine Land and Reservoir Company for reservoir purposes on the Mono Forest. No reservoirs have been constructed.

Grazing reconnaissance data just compiled for the northern portion of the Warner Mountain Division of the Modoc National Forest has made it possible to readjust the grazing allotments so as to provide for 7,500 cattle and horses and 12,000 sheep and goats on the Forest during the grazing season of 1918. This represents an increase of 13 per cent in the number of cattle and horses grazed, and an increase of 80 per cent in the number of sheep and goats.

Lieutenant R. G. Watkins, of the War Department Intelligence Office, will speak to the members of our "Arson Squad" on Thursday evening, April 4, and give them some idea of the Intelligence Service as applied to the military.

Miss Hallie Daggett of the Klamath Forest may lose her title of the "only lady lookout in District 5." An application was received last week from a Riverside girl who is looking for a similar position, and it is quite likely that she will be placed on the Shasta Forest.

John M. Miller, of the Bureau of Entomology, called on us recently to talk over plans for the experimental control work which is to be undertaken on the Sequoia Forest in the near future. Mr. Miller and Forest Examiner O. M. Evans will leave early next week for Three Rivers to start the work, and will be joined there by Mr. Hopping. It is proposed to study particularly the question of the effect of controlled areas upon insect infestations on adjoining lands where no control work has been done.

We understand that a local automobile firm is constructing a tractor which will take the place of horses in big-wheel logging. This will allow the use of big wheels on steeper slopes.

Some friends of this office are proving themselves indefatigable in their efforts to help along the knitting activity. Mrs. Fred Vogliazzo of Berkeley has not only contributed, entirely at her own expense, a sweater and three pairs of socks, but has raised, through the medium of a card party, twenty-two dollars, which she has turned over to this office for the purchase of wool.

Here is a True Story of a Very Sad Occurrence which Transpired in District 5 on March the Twenty-Eighth, near the Gladsome Hour when all the Good Little Boys and Girls put on their Hats and Bonnets Preparatory to Going Home. A Highly Respected Member of the Office Force Passed Swiftly along the Hall that Runneth by the Stock room. He had a Pipe; He had a Match. He lit the Pipe from the Match, and then he Cast Away the Match, which sat Down on the Nice, Smelly, Newly-Creosoted Floor and Burned and Burned and Burned. No, Genevieve, the Man did Not "Break the Match in Two," neither did He Step on It. Then another Man Who had Observed the Proceedings Picked up the Match and Brought it to a Certain Office, where it is Preserved as Exhibit One. We Regret that Such Things Be, but it is our Motto to Tell the Truth and Shame the Kaiser. Moral: A Match Has a Head, but Who Wants to Have a Head to Match?

District 6

The Forest Service has just recognized seven new cattle-and-horse associations on the Malheur, all of which have adopted the special salting and herding rules. The Sisters-Metolis Cattle and Horse Association, on the Deschutes, now requires users of the range to file complaints (if they have any to make) with the advisory board of the Association, which meets monthly at the Supervisor's headquarters. If, after investigation by the Board, the complaint is found to be just, the Association pays the expense incurred; otherwise the cost is assessed upon the one complaining. In this way only legitimate troubles go before the Forest Service.

Here is what the Women's Service Committee of the District has accomplished to date in the way of knitting: 224 sweaters, 20 pairs of wristlets, and 3 pairs of socks. Amount raised in the District for yarn, $421.80.

Up to February 1 it looked as though we should have a good deal less than usual in the way of snowfall. After that, however, something must have happened, for on March 1 a depth of 100 inches was recorded at one of the Minam Forest snow stakes; 63 inches at a snow stake on the Crater; and 60 inches on the top of Seven Mile Hill, on the Santiam.

F. E. Bonner, of the Washington office of Engineering, recently spent two days in the District Office.

T. P. Flynn, draftsman, has resigned to enlist with the Canadian Railway Engineers.

The Forester and Mrs. Graves were recent visitors in District 6. While with us Colonel Graves found time to make a number of addresses before various organizations of Portland. He also gave a talk to members of the District Office about his trip to France and his activities while there, which made us appreciate more than ever the importance of the work the Forest Regiments are doing.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

April 15, 1918.

Timber Supplies for War Needs

During the past year the office of Forest Investigations has gradually been changing over from a peace time to a war time basis--from counting seedlings, measuring meteorological factors, and classifying sites, to studies more directly connected with the grim business of war.

With the advent of warm weather the wood fuel campaign is drawing to a close. It has had such important results that it will be resumed next fall. In the meanwhile, E. R. Hodson is preparing ammunition for the next campaign in the form of a Wood Fuel Manual.

For the next few months the main efforts of the office will be devoted to problems concerning the supply and production of timbers of particular importance for war purposes and the coordination of conflicting requirements when the same species is in demand for two or more purposes, as, for example, black walnut for gunstocks and airplane propeller blades. In general, specific information is usually needed on such points as: requirements of the United States and its allies; approximate supply of standing timber; location of timber of suitable quality and sufficient quantity for the required purposes; accessibility of selected areas; methods and costs of exploitation; stocks on hand at mills and distributing points and at large consuming factories; diversion of material from nonessential to war uses; and improved methods of handling and manufacture.

Since the beginning of the year E. D. Fletcher, on detail from Acquisition, and K. M. Clark, formerly with Sewall & Co., consulting foresters, have been making a survey of the spruce situation in the Northeast with a view to increasing the production of airplane material for the Navy Department. Final reports have already been submitted on New England. The work will soon be completed in New York State and will then be continued in the Lake States and the Southern Appalachians.

Ways and means of increasing the production of black walnut, of which there is a marked shortage both for gunstocks and propeller blades, have been under investigation for several weeks by G. N. Lamb and F. S. Baker, the latter on detail from District 4. Their work has so far been confined largely to the mills, and has indicated the possibility of greatly increased production through more careful methods of manufacture and the elimination of waste. During the present week the study will be extended by the assignment to it of W. D. Brush, of the office of Industrial Investigations, and W. M. Stouck, a practical lumberman and lumber dealer, who has recently joined the Service. Mr. Brush will also look into the available supplies of rock elm, which is a substitute for ash in airplane construction.

Another study to be taken up this week is the location of additional supplies of chestnut wood and chestnut oak and hemlock bark for tanning purposes. Because of the present shortage of shipping it is necessary to reduce to a minimum, and perhaps to stop completely, the importation of tanning materials, such as quebracho, necessitating a corresponding increase in the home production. The work will be started in the Southern Appalachians by G. E. Marshall and H. G. Wood, both of Acquisition. They will very likely be joined a little later by W. N. Sparhawk and C. R. Tillotson, who are just bringing to a close the wood fuel campaigns in Maine and Minnesota.

E. N. Munns, on detail from District 5, left last week for New York and the Lake States to look into the availability of white pine and Norway pine as possible substitutes for spruce in airplane construction. It is probable that this work will be followed by a similar survey of bald cypress in the South.

A study of supplies and utilization of the oaks, by W. D. Sterrett, which has been under way for some time, is being adapted to war needs.

Plans are now being formulated to secure additional data regarding the available supplies of various other hardwoods such as birch, maple, basswood, cherry, black locust, and yellow poplar. E. H. Frothingham will handle the study in the Lake States, K. M. Clark in New England, and it is hoped later to assign some one to the Southern Appalachians.

Similar work on a number of western species has been handled through the District Foresters. Ever since last fall District 6 has been securing data on Sitka spruce, which is the main reliance of this country for airplane material. It is hoped in the near future to make a general survey also of the available supplies of western white pine in District 1, sugar pine in District 5, and Port Orford cedar, Douglas fir, and western hemlock in District 6.

This is a very practical and very comprehensive program, so comprehensive, in fact, that the regular force will need to be expanded in order to handle it properly. Some contributed funds are now available, and it is hoped that these will be increased. In addition to the men already mentioned, A. F. Hawes has been detailed from the States Relations Service to assist in supervising the work. J. W. Stokes has come in from District 4 to help in handling such peace work as must be continued, and other men will doubtless be taken on later as the work expands.

All of these activities are being carried on in close cooperation with the various branches of the War and Navy Departments concerned, and also with such other organizations as the War Industries Board, War Trade Board, and Shipping Board. The program touches many vital questions and the data obtained will go far toward enabling forest resources and forest industries of the country to play their proper part in winning the war.

S. T. DANA.

Conferees Approve Motor Vehicle Mileage Reimbursement

House and Senate conferees on the Agricultural Appropriation Bill have agreed to retain in the bill the provision for motor vehicle mileage reimbursement. In its final form this section of the bill now reads: "Whenever, during the fiscal year ending June thirtieth 1919 the Secretary of Agriculture shall find that the expense of travel can be reduced thereby, he may, in lieu of actual traveling expenses, under such regulations as he may prescribe, authorize the payment of not to exceed two cents per mile for a motorcycle or six cents per mile for an automobile, used for necessary travel on official business: provided, that there shall be no payment for the use or travel of a motorcycle or automobile furnished or owned by or maintained by the Government of the United States."

Receipts Show Increase

An increase of $189,000 is shown in the National Forest receipts for the first nine months of the current fiscal year as compared with last year's record for the same period. To date the total receipts amount to $2,050,000. By keeping up the pace for the remainder of the current year there is no question but that the total receipts for the fiscal year 1918 will exceed by a good margin those of the previous years.

Increase in 1918 Stock Allowances

Final approval of 1918 stock allowances for the National Forests provides for an increase of 240,000 head of cattle and over 500,000 sheep over the number grazed under permit during the previous year. The total number authorized is 2,359,402 cattle, 8,937,837 sheep, not to mention 51,685 swine.

The increase is possible through the opening of new ranges, the improvement of watering facilities, and the better utilization of some of the older ranges by local readjustments.

The largest increase is in District 2, where this year 51,000 more cattle and 151,000 more sheep will graze than in previous years. There has been an increase of 137,000 sheep in District 5. The increases in sheep in District 2 are possible through the opening of range heretofore closed to sheep grazing. The Battlement Forest will take care of 10,000 additional sheep, the Bighorn of 18,000, the Bridger of 12,000, and the Leadville 23,000.

The Tusayan Forest, District 3, will take care of 10,000 additional cattle.

Indian Forester Studying American Conditions

F. A. Leete, Conservator of Forests of the Imperial Forest Service of India, is in this country to make a study of American lumbering and forest engineering conditions. He is at present on the Pacific Coast, where the lumbermen through the efforts of the Forest Service have expressed a willingness to cooperate and are doing all within their power to get the visitor in touch with all phases of the lumber industry of that region.

Washington Office Notes

J. A. Mitchell has left Washington on a possible two-months' inspection trip of the fire protective measures in several of the States cooperating under the Weeks Law. His itinerary will take him to West Virginia, Kentucky, Virginia, and Maryland.

Harry B. Krausz has been appointed farm forestry specialist in North Carolina. His work will be carried on under the direction of the State Agricultural Extension Service in cooperation with the Forest Service and the State Forester. North Carolina is the first southern State to have a specialist for farm forestry.

Farm forestry demonstration work in Maryland will soon be undertaken by members of the Forest Service. A cooperative agreement has just been entered into by the Forest Service with State Forester Besley and the Extension Director of the Maryland College of Agriculture.

E. O. Siecke has been appointed State Forester of Texas, succeeding J. H. Foster, who recently resigned on account of private interests requiring his attention. Mr. Siecke has been Deputy State Forester of Oregon for the past seven years and previously taught for some considerable time at the Oregon Agricultural College.

Twenty-two States are now in line and cooperating with the Forest Service under Section 2 of the Weeks Law. The latest addition is Louisiana. R. D. Forbes, Superintendent of Forestry for Louisiana, has been appointed collaborator. The agreement provides for the employment of seven patrolmen, and the Forest Service has allotted $2,000 as its share for 1918. The State gives at least an equal amount during the same period.

W. R. Mattoon is back at his desk from a trip to Kentucky, West Virginia, and South Carolina. In the first two States plans were formulated for the cooperative handling of the wood fuel problem between the Forest Service and local agencies. In South Carolina he made the annual inspection of the experimental reforestation work in longleaf cut-over lands which is being carried on with the College of Agriculture since 1912.

L. C. Everard is back from the Madison Laboratory, where he spent some seven weeks in editorial work. Mr. Everard says that the Laboratory force is as busy with war work as a machine gunner at Messines Ridge.

Members of the Washington office have, up to date, subscribed a total of $13,500 toward the third Liberty Loan. The amount will be bigger still before the drive is over. On April 15 Assistant Secretary of Agriculture Ousley gave an inspiring talk to the members of the Office on the need for putting every bit of our available money at the disposal of Uncle Sam. We plan to give extracts from Mr. Ousley's talk in the next issue of the Bulletin.

D. L. Quinn and L. R. Morris, of the Madison Laboratory, are visitors. They come for the purpose of pushing the improved box designs for which the Laboratory is responsible.

The War Will Be Won

On Active Service
with the
American Expeditionary Force.

To the Editor:

If you will bear with a suggestion without accusing the writer of criticising an article and a publication which has brought to him much of pleasure and of profit, I would like to comment on the opening sentence of that interesting article by Mr. S. T. Dana, your issue of January 31, 1918.

How much I wish his sentence and his thought might have read, "Sooner or later the great war will be won." Too much, it seems to me, are the American public making it a desideratum that the war should end. Too much hope and prayer for peace, too much speculation as to when the war will be over. Far rather would I see the United States a unit, wishing, hoping, praying, writing and talking of "when we shall win." The distinction may be subtle, but, oh, what a difference! When the war is won -- and there isn't a man over here that doesn't know that with the resources of the United States available, it will be won-- then will not only "the war" but all war be over for a long time.

"War is a game which, their subjects wise,
Kings could not play at."

And much must transpire to "wise" the subjects of a mad Kaiser. But give us moral support, as well as material support. We need powder and shells, and cannon and food, but we also need inspiration and enthusiasm, for the demands on our enthusiasm sometimes are rather severe, and these are forces that you can send in unlimited quantities, individually and collectively, if you will.

Do not say, or think, or let your friend say dubiously: "It doesn't seem possible we can lose."

Nay, rather say, and force him to say and to think: "We will win." "We can win." "Our cause is just and victory is sure."

This being settled, the question of when is one that need not worry us. France has been sure of victory for four long years in August of this year, sure of it even when the whole world seemed falling about her ears, and her fortitude has brought three-fourths of the world to her aid. Had she wavered or faltered, or her populace combatant (I almost said "or noncombatant," but I have not found a noncombatant man or woman in France) admitted the possibility of defeat in those years, a "great war" would have been over, but I am afraid "the great war" would be yet to come.

Hence, if I may send you a message from over here, I would say to you:

We are well fed; we are well clad, we are armed. These things our Government furnishes. We have ardor, impetuosity, intelligence, and courage. These are our birthright. But we must depend upon you, the real Americans in America, for that moral support, that assurance of victory, that knowledge that you will back us, not till peace can be made, but until the war can be won and the demon of Prussianism sent to curse the fiends of Hell.

Back us with this spirit, and the Gates of Hell (which sometimes seem rather too close for comfort) can not prevail against us.

Adieu, then, until we win.

(Signed) Herbert S. Ward,
Master Engineer, 116th Engineers,
A. E. F., France.

Amen and amen! There are still people in this country who want to tell us it is doubtful whether the war can be won. Such talk gives aid and comfort to the enemy. It should not be listened to. If anybody on the other side thinks the spirit of the Forest Service is one which admits the possibility of any compromise, or of settlement on any other basis than that of victory for the cause of humanity and international righteousness and justice, we wish he were here for an hour to be set right. Though the burden falls at the end on our country alone, and though we must fight it out for many years, we are in the war to win. We know we are not even fairly started yet. But the resolution to

carry through, at whatever cost, is here, and it gains power day by day. Master Engineer Ward's letter is the sort of talk that we need and want to hear.

THE EDITORS.

Parcels Post Shipments to Soldiers Abroad Restricted

The Post Office Department has prohibited the shipment to soldiers abroad of articles for which a request has not come from the addressee, with the approval of his regimental or higher commander.

This action was taken at the request of the War Department, on grounds of military necessity. It was presumably designed to prevent the relatives and friends of individuals from burdening the mails with superfluous articles, sent without knowledge of what the soldiers really need. For the time being, however, it puts a complete stop to our shipping any more of the socks which have been knitted for the Forest Engineers.

We can send no more packages until we have communicated with the officers on the other side and received from them the requests required. Meanwhile our knitters will, we hope, not allow their enthusiasm to be cooled by the temporary obstacle. When the formal requests are received we want to have a goodly stock that can be mailed at once. In a way there will be a real advantage from the embargo. It will enable us to reach a point where we can send enough socks at one time to outfit entire companies.

The proposed plan is to send a supply of prepared requests to Major Greeley, asking him to send them on to the several commanders of companies or detachments. Each request will be for 22 pairs of socks, the number that can be put into a package without exceeding the 7-pound weight limit. Since the Post Office order requires that the request be enclosed in the package, a company commander will have to sign up a number of requests to secure enough socks for all his men.

It may be that this issue of the Bulletin will reach our Forest Service men on the other side before the requests which we are sending for signature get through. If so, and they want the socks that are waiting here for them, we hope that they will take this as an invitation to make out requests at once and start them along, in accordance with the procedure prescribed by the Post Office Department.

War Brevities

Sixty-three additional Atlantic Coast and Gulf vessels have been commandeered by the United States during the past week. This makes a total of 111 coastwise vessels, aggregating 400,000 tons, that have recently passed under Government control. This tonnage will be used for the transportation of materials between New England and the South to relieve the rail congestion between those points.

Washington and Oregon shipyards are expected to construct 300 wooden vessels during the period March 1, 1918, to March 1, 1919, according to announcement made by J. P. Bloedel, Director of Fir Production for the U. S. Emergency Fleet Corporation. Timber resources are available for the construction of 450 wooden ships, but lack of facilities in the shipyards will limit the output to the stated amount.

Announcement is made of the death, on March 15, 1918, of First Lieutenant John G. Kelly, Jr., U. S. R., commanding 3rd detachment, 10th Engineers. His death resulted from injuries received in a motor car accident while in line of duty. His promotion to Captain and Battalion Engineer Officer was under way at the time of his death. Before joining the 10th Engineers Lieutenant Kelly was with the Booth-Kelly Lumber Company of Eugene, Oregon.

Company D, 10th Battalion, 20th Engineers (Forest) boasts of numbering among its men three members of the same family. The Hammond boys quit operations in a perfectly good timber sale contract in the Black Hills with the Forest Service and have undertaken the bigger contract of cutting timber in France. Had not age prevented, the father would have come along, and the Hammond family would have been able to form an independent sawmill outfit.

District 2

Grass has already started on the ranges and general conditions look favorable for a good grazing season. The season will be from three to four weeks earlier than last year. The stock has pulled through the winter in good shape, due in part to the mild winter. Losses have been comparatively small. General conditions are greatly improved over last spring. The amount of stock carried on the Forests in this District will even be in excess of last year, when there were large increases under the war emergency authorizations.

E. E. Carter, of the Washington Office, accompanied by Riley, Thompson, and Johnson, made a trip to the Bessey Nursery. It is expected to complete the field planting operations by April 15, provided favorable weather conditions continue. About half of the million trees to be planted were set out by April 1. Several forest school students from the Iowa State College, under the guidance of Assistant Professor Truax, have been present as observers of the spring operations.

An abnormally dry season is reported by the supervisors of the Minnesota and Superior Forests. Snow has disappeared and the ridges are bare. The snowfall was fully a foot below normal. In the absence of rain this spring the fire season in Minnesota will open at least a month ahead of the usual time.

District 3

Owing to the urgent demand by the Navy for binoculars, this District will respond by making available practically its entire supply. Under present conditions, it is felt that there is greater need for them on the part of the Navy than there can possibly be on our part. Exception will be made only in such cases where it can be conclusively shown that there might arise a serious local situation through lack of binoculars.

Sixty elk have been obtained through permit by the State Game Warden of Arizona from the Yellowstone National Park for shipment into Arizona. Thirty elk were turned loose in the Blue Range and the remainder shipped to Pine for liberation in the Mount Graham Game Resdrvation. The capture and transportation of these animals was done at an expense of $1,212. Express charges were $912, the remainder of the cost representing the expense of capture and loading.

District 4

A silver-gray fox pelt recently brought $150 to Ranger Shaw of the Challis Forest. While engaged in trapping coyotes, he had the good fortune to capture the fox.

Planting stock will soon be shipped from the Beaver Creek Nursery to the various spring planting projects. A. E. Oman, who had been on detail to the District Office during the winter, has supervision of the work.

D. F. Seerey, Logging Engineer for the District, has gone to District 6 for an indefinite stay to appraise two bodies of timber in Wallowa and Union counties, Oregon.

A sock-knitting machine has been donated to the Forest Service Auxiliary of the Red Cross. The machine was delivered last week and a demonstrator from Salt Lake City has already shown a number of the ladies how to operate it. Socks from now on ought to flow in a steady stream from Ogden to the boys in France.

A record of the outgoing mail from Ogden for the month of March reveals the interesting fact that a total of 5,302 pieces went through the mail room as follows: 5,148 pieces of letter mail, 97 packages, 32 registered pieces. In addition to these, 24 express packages were sent out.

District 5

The initial Road Bulletin met with instant success, judging by the number of inquiries received. A request was received from one individual for fifty copies of each issue.

Special forest fire warning signs will be posted for the Forest Service by the California State Automobile Association under an agreement recently made. The signs conform to the association's specifications as to size, shape, color, lettering, etc., being black enameled 18-gauge metal, diamond shape, 24 x 30". The lettering is dark blue on a lemon-yellow background. The signs are fastened to 3" boiler tubing posts, 12 feet in length, placed 3½ feet in the ground. The legend carried is "Help Prevent Fires." The Forest Service shield is placed above, and the words, "Forest Service, Department of Agriculture," at the bottom.

Education is going to be provided in a very attractive manner during the coming summer on the Sierra Forest on the shores of Lake Huntington. The prospectus of the Sierra Summer School, filled with entrancing views and containing many inducements, seems to give this promise. The session will extend from July 1 to August 6.

District 6

P. H. Dater, of Portland, has been appointed District Engineer for the North Pacific District, and took up his new duties April 4. Mr. Dater left the Service several years ago to take up private work as City Engineer of Portland.

Telephone Engineer C. M. Allen is spending some time on the Snoqualmie, planning extensive bridge repairs made necessary by the unusual floods of the past winter. A temporary bridge will be constructed to replace the one washed out near the Clear Creek ranger station, and extensive repairs will be made to the Whitechuck suspension bridge.

The Oregon State Board of Forestry met in the District Forester's office April 5, Governor Withycombe in the chair. Other members present were L. S. Hill, G. W. Peavie, F. A. Elliott, Mr. McLeod, and George H. Cecil. Because of ill health, A. T. Buxton has resigned as a member of the Board and his successor has not yet been appointed by the Governor.

M. L. Erickson has resigned as Supervisor of the Crater.

On April 6, the first day of the Third Liberty Loan drive, members of the District Office subscribed for bonds to the amount of $7,050.

District 7

F. W. Reed and C. G. Smith have started on a month's trip, more or less, of inspection of the timber sale business on the Southern Appalachian Forests. The purpose of the trip is to make sure that there is a clear understanding between the Washington Office and the field end as to the problems involved.

WEEKLY BULLETIN.

Forest Service - Washington Office

(Not for Publication)

April 22, 1918.

The People Want More Forests

A strong "boost" for the National Forests and their administration has been furnished by the Alaska Territorial Council of Defense at Juneau, Alaska, in the form of an urgent request to the Council of National Defense for the immediate withdrawal of all land lying within ten miles of Lituya Bay, Alaska. The area in question is reported to contain a heavy body of airplane spruce. The Territorial Council asks that the assistance of the Forest Service be secured in having the timber cruised with a view to determining its value for aeroplanes and the facilities for getting it on the market.

This is but a single example of popular local requests which have been received by the Forest Service from nearly every mountainous Western State, asking for additions to existing National Forests. During the present session of Congress bills have been introduced providing for three additions to the Wyoming National Forest. There is strong local sentiment back of each one of these measures, and it is expected that all will be acted upon favorably. These are in addition to the measure passed by the last session of Congress authorizing an addition to the Wyoming Forest, and to the Act adding certain lands to the Teton National Forest.

Two measures are now pending in Congress for additions to Idaho Forests, one providing for an extension of the Goose Creek Division of the Minidoka National Forest, and the other for an addition to the Weiser National Forest. Urgent appeals have also been received for the inclusion of certain lands along the Continental Divide lying between the Targhee and Lemhi National Forests.

Encouraged by the success of the Colorado delegation in securing an extensive addition to the Colorado and Pike Forests by special Act of Congress, the stockmen in the vicinity of Gunnison, Colorado, have asked Congressman Taylor to introduce a bill adding all of the remaining public lands lying east of the 107th parallel to the Gunnison and Cochetopa Forests. Their proposal would mean the addition of much land unsuited for forest purposes, and was therefore not fully approved by the Forest Service. A counter proposal has been made to Mr. Taylor, for submission to his constituents, suggesting action by Congress authorizing the President to add to the Forests such of the lands as, after examination by the Service, are found suitable.

Urgent petitions have been received requesting the extension of the Grantsville Division of the Wasatch National Forest, and petitions have also been circulated by stockmen requesting the addition to the Manti and Uinta Forests of public lands totaling approximately 600,000 acres. No opposition is known to exist to the requested Grantsville addition, but the Manti and Uinta addition is being strongly opposed by a great many people who have filed applications under the stock-raising homestead law for lands in the proposed addition. However, it is not conceivable that favorable consideration could be given to any material part of this area, since it has been repeatedly examined and rejected in the past.

Very urgent requests have been made for the inclusion of approximately half a million acres lying north of the Modoc and Shasta Forests in the vicinity of Klamath Lake, Red Lake, and Clear Lake, Cal., for the purpose of regulating grazing. The Forest Service has refused to approve the proposal unless the addition is made by special Act of Congress which specifically states that it is for the purpose of range regulation. It is interesting to note that in the four important public land States of the West where additions may be made without special Congressional action -- Utah, Nevada, Arizona, and New Mexico -- in response to petitions submitted by local residents, between ten and fifteen million acres of public land have been examined by the Service and reported upon adversely.

The latest advocate of further extension of the National Forests is Dr. E. B. Perrine, who requests that the boundaries of the Prescott National Forest be extended west and north of the Luis Maria Baca private land grant, so as to include his land holdings in that region. Dr. Perrine professes no friendship for the officers of the Forest Service, with whom he has had many controversies regarding his alleged grazing rights, but he recognizes the value of public regulation, both from the standpoint of increased carrying capacity of the range and increased and regulated streamflow.

E. A. SHERMAN.

The 10th Plays Baseball and Saws Wood

Here are some extracts from a recent letter from Captain John D. Guthrie:

"The cigars were a life-saver. Cigars are hard to get over here. The band music came and you can't realize how the boys grabbed it. We had the instruments, the players, but no music. They were eager, so eager to play, and it had been so hard to get music. The band immediately started to use it and now play (over and over again) every piece you sent. It was the first they had gotten and if you could have heard them play and seen them at a recent field meet we had with the 20th, it would have fully repaid you. About 90 per cent of the band are Co. C men. At this meet we also played the 20th baseball, and won by 1 run -- in the 14th inning. They had the surprise of their lives; they have a fine pitcher and thought it would be a walkaway. We played them to a finish, and Smith, one of my men, pitched the last eight innings and made the only run of the game! The 20th treated us royally; I just had to let my men off that night and put it up to my four sergeants (three in the baseball team and one in the band) that it was up to them to keep the men out of trouble, and they did, and all reported back to me the next A.M.

"And the phonograph records came through safely. The needles, too, were a Godsend. They're hard to get over here and you sent such a bunch and such durable ones that they'll last a long time. The night before the game and meet, Co. C had an entertainment and the band played "A Perfect Day." After they finished I stated to the crowd that that was the tune the band was going to play the next day after we had licked the 20th -- and sure enough the next day, just as the game was over, the band started with "A Perfect Day" and sure made a hit!

"I don't recall the day of the month, though I think it was September 10, that we sailed from New York. We left D. C. on Sunday and sailed about sunset on Monday, and I'll not soon forget the experience of sailing out of N. Y. harbor in the light of the setting sun, with the Statue of Liberty guarding our exit into a foreign land and world.

"Our camp is to have a Y. M. C. A. barracks soon, and a billard table. The company is to pay for the table out of money made in the canteen and such a treat it will be for the men. 'Twill keep them in camp at night and away from places they shouldn't go to. I'm trying to encourage the men in saving their money and keeping decent. They can deposit their money with the Government and draw it at the time they are discharged and have it draw 4 per cent, and many of them are doing it. Some thrifty souls are depositing over half their monthly pay (and the private gets only $33 over here). One of my men gave me $400 the other day to deposit for him. You see the Government furnishes almost everything except tobacco and there's no reason why they shouldn't save some money; 'twill come in handy after the war. My company has a fine record in War Insurance (over a million dollars' worth of insurance was taken out by Co. C.) Besides the large majority of the men are making monthly allotments to their families or parents. There's only one man in my company who isn't making a monthly deposit or an allotment or hasn't any Government insurance."

Extracts from a letter from Lieut. Robert L. Deering, Co. D., 10th Engineers (Forest), A. E. F.

" * * * * Will surely seem very strange to hear every one speak English again, as over here we have rather a wild time trying to talk to our French friends in their own tongue. I never had much success speaking "Mexican" but have an even worse time with French. I do regret that I didn't take a little language other than German when in school, but such is life.

"We feel quite like "old-timers" here now as we have been across over five months and in a short time shall have been in this camp for five months. We have quite a fussy lot of buildings, when it is recalled that this is war time and we really are as comfortable as we should be in a logging camp. We have our own water system with running water into all of the houses. The bunk houses have a capacity of about sixty to sixty-five men when the upstairs space is used, and we have a large mess hall in which the boys sit down to small tables for their meals. They have discarded the mess kits while we are in camp and eat out of sure enough dishes which we bought here by popular subscription. For quite a while we used our mess kits too and it is rather a difficult feat to balance the lid of the "meat can" holding something quite soupy with the can itself in one hand and a cup of something hot in the other without giving some one a bath or spilling something.

"We eat with the men or I should say eat the same kind of food they do with a few frills which our man-of-all-work fixes up for us. We pay the company fund a franc apiece for each meal we eat and live mighty well. I am quite fat and able to stow away three fairly good meals a day.

"We are near enough to the front to hear the big guns booming on very clear days. We haven't ever been bombed and really live quite a peaceful but busy life.

"The timber is fairly large, much larger than I ever expected to find in France and we have several million feet to cut here at this place. The forests really are wonderfully well kept with no underbrush at all and fires are an absolutely unknown thing. The old French major told me that he had seen but three fires in this part of the forest in thirty years. The trees are mostly all fir with some spruce in spots. The forests are heavily covered with real young stuff, poles and a good bit of mature. Naturally they just let us have the old boys so we are practicing selection cutting on a rather medium light scale. The French who do logging here are a scream! They buy a tree or two at a time, go out and climb up to cut the limbs off as far up in the top as they dare to go. They then fell the trees very carefully to be sure they don't break them up. When the tree is down they finish limbing and then peel the entire tree without bucking it up at all. After it has been given a little time to season they come in with a couple of ox teams and by the use of a powerful but antiquated wooden jack they some way manage to load the beast. Then begins the trip to the mill which may be located seven or eight miles away and may take the oxen two or three days to walk in. Whenever night overtakes them they leave the teams partially out of the road, unhitch and go home to start again in the morning. The oxen are not yoked but there is a wooden frame which goes over their horns into which the pole is fastened and they surely can pull. The French are astounded at our methods and don't understand American speed at all."

Perfectly Natural

District 4 announces, in the Intermountain Review Ranger, that on the Toiyabe seven ewes have produced lambs crossed with deer. "The herder states that a buck deer ran with the band for a period of six days. These lambs have the deer marks and characteristics. They have long light legs, jump like a deer, and have ears straight up like a deer. Their hair is not wholly nor does it closely resemble the hair of a deer. Three of the lambs died, but the remaining four lambs or deer are strong and vigorous."

The Daily Bulletin of the Southwestern District manifests skepticism. "O Biology, what crimes are committed in thy name!" it scoffs. The Washington Office, on the other hand, regards the story as entirely credible. In the East dear mutton is now too common to occasion any remark at all.

Madison Laboratory

Announcement is made of the death on April 11 of Charles R. Cressey, Assistant Chemist.

War Brevities

Announcement is made of the death in France on March 31 of Major Edward E. Hartwick, of the 20th Engineers. Major Hartwick was a graduate of West Point and served seven years as an officer of the Regular Army, distinguishing himself in Cuba during the Spanish-American War. Later he resigned his commission and entered the lumber business. At the time of this country's entrance into the war he was president of the Hartwick Lumber Co. of Detroit.

Special trains will rush 50,000,000 feet of Douglas fir timber to Atlantic and Gulf coast points to speed the wooden-ship construction. These shipments are an emergency measure to bring the eastern yard output up to the program set by Chairman Hurley.

Black locust treenail material will, in the future, be purchased in accordance with specifications drawn up by the Forest Service and the American Bureau of Shipping, on the basis of driving tests recently made. These tests were made to determine the permissible defects without affecting safe ship construction.

One hundred sixty binoculars and 85 monoculars have been turned over to the Navy by the Forest Service. This represents glasses from the entire Forest Service except District 6, which is yet to be heard from.

Responsive to a call from the War Department, the Forest Service has sent to the General Engineering Depot 21 proportional dividers, 27 telescopic alidades, 22 plane table boards with accessories.

Washington Office News

L. S. Murphy has left Washington on a probable two-months' inspection trip of the Northeastern States in connection with the Weeks Law.

The Office of Forest Service Appeals in the Office of the Secretary has, since its inauguration in 1913, handled 272 settlement appeal cases. The decision reached by the Forester was affirmed in 266 cases, modified in three, and disaffirmed in but two instances. One recent case remains unacted on.

W. B. Barrows, of Forest Measurements, has resigned.

H. S. Betts has left for a ten days' visit to the Madison Laboratory.

Dr. Otto Kress arrived in Washington for a brief stay in the interest of the pulp and paper experiments of which he is in charge at Madison.

District 1

C. L. Billings has returned from two months' timber survey work on the Arkansas in District 7.

P. S. Gray, of Accounts, has enlisted in the U. S. Naval Reserve and will be called May 1. After a brief course of training he expects detail to sub chaser duty.

H. C. Kuhl, surveyor, has resigned to accept a position as engineer with the North Dakota State Highway Commission.

District 3

Prairie dog eradication is to receive special attention in the entire Southwest, according to a statement made at the Wool Growers' convention at Albuquerque, by S. E. Piper of the Biological Survey. $20,000 will be spent in the purchase of poison and other materials. The necessary grain will be obtained through voluntary contributions and the distribution of the poisoned grain will be done by voluntary poison squads under supervision of the various county Councils of Defense. First work will be in the farming districts to protect the grain; later other regions will be given attention.

District 4

J. C. Brown, for a long time in Operation, has left for the Madison Laboratory to be Superintendent of Motive Power.

The marriage of F. S. Baker and Miss Kalla M. Hodge took place in Ogden on April 13. They left for Indianapolis, where Mr. Baker will be engaged in the work of securing better utilization of the black walnut stands.

H. W. Johnson has been transferred for the summer to District 1 for participation in the special examination of grazing areas in western Montana and Idaho.

Dehydrated foods purchased by the Army in this immediate region will be examined for the determination of moisture content under an arrangement made with the Office of Research.

District 5

State-wide meetings attended by representatives of the Forest Service of the Livestock Commission of the Food Administration and of the Cattlemen's Association have been scheduled. Advantage will be taken in this connection to suggest the formation of a central State organization to comprise the local Forest livestock associations. General sentiment seems to be favorable to this.

Utilization of wood for fuel will receive special consideration by the U. S. Fuel Administration for California. The special committee having this in charge will include all wood-using industries in its investigations.

District 6

E. Barnes, Supervisor of the Minam Forest, has resigned.

The administration of the Minam and Whitman Forests has been consolidated with Supervisor R. M. Evans in charge.

$8,500 represents the subscriptions to date (April 13) of the District office to the Third Liberty Loan.

The Forestry Building in Portland, remaining from the Lewis and Clark Exposition, is being seriously damaged by white ants. The full extent of the damage has not been definitely determined.

Oregon City has requested the addition to the Oregon Forest of certain adjacent lands forming a part of the South Fork Clackamas River watershed, for the purpose of putting them under the same protection and administration given other lands in this vicinity and already a part of the Forest.

District 7

Timber sale receipts, exclusive of turpentine sales, are on the increase. For the first nine months they amount to $52,312.63, an increase of 11 per cent over the income for a similar period last year. In spite of its youth, District 7 has now climbed out of last place in the list of Districts, arranged on the basis of timber sale receipts, having passed District 4. The prospects are good for still greater activity.

ASSISTANT SECRETARY OUSLEY TALKS OF THE WAR

At the request of the Forest Service, Assistant Secretary Ousley addressed a meeting of its members at the Atlantic Building on April 15. The meeting was held in the interest of the Third Liberty Loan. Mr. Ousley spoke as follows:

Ladies and Gentlemen: I think that I can illustrate the idea that is in my mind this morning by relating a little personal experience. I was out a week ago last Saturday, up in Lakewood, New Jersey, and I had to drive from Philadelphia in the afternoon about 60 miles to this place, and then after the night meeting 40 miles more to Trenton, New Jersey, to take a train to the next appointment; and I was complaining of the committee that made that hard program. I complained all the more when halfway from Lakewood to Trenton, when we were speeding at 35 or 40 miles an hour to catch the train, the engine broke down and I had to rouse up a farmer and persuade him to take me in in his jitney. I was complaining because I had to endure this discomfort, had to spend most of the night on the road and get only two or three hours sleep. But after I reached the hotel in Philadelphia at nearly 4 in the morning, knowing that I had to arise at a little after 6, I got into a comfortable bed, between clean sheets, and I knew that I could have a refreshing bath in the morning. I happened to remember as I lay there feeling the comfort of this couch that I had read that day that 100,000 of my countrymen were marching through the mud and the rain in France and that they were going not to a clean bed nor to a refreshing bath, but to the chambers of the trenches, not to sleep but to engage in the combat, the fiercest and most inhuman that this world has ever known; not to indulge the next morning in a refreshing bath, but to stand for days in the mud and in the hell fire of that contest until they were filthy, and perhaps to die there. Then I reproached myself that I had complained of this little discomfort and rejoiced that I had been able to render some little service.

We have not yet realized in this country that this war is to be fought by the people at home as well as by the men in the Army and Navy. The Army and Navy cannot win it alone; the Government cannot win it. We will not win this contest until we all go to war, until we all give, as we have pledged in the declaration of war, our fortunes, our lives, and our sacred honor to this cause.

I heard a very eloquent address a few days ago by Dr. Alonzo Taylor, whom some of you may know, who is perhaps the best informed American concerning economic conditions in Europe, and he explained that there are three zones of war. The first is the zone in which the Army and Navy operate. That was the zone that we occupied in the Spanish-American war. That was the zone that England occupied the first year in this war. That was the zone, indeed, that Germany occupied during the first year of this war, because Germany expected to finish this clash in less than six months. That is the zone that we now occupy.

The second zone of war, as he explained, is that in which we articulate all business and industry to war purposes, in which we suspend all unnecessary activities and allow no energy to be expended except in the direction of making for war success. We have not entered that zone yet. We are still manufacturing trifles, we are still selling in the stores useless things, we are still operating industries and plants for pleasure.

The third zone, as Dr. Taylor explained, is the zone of individual articulation, where every man's daily activities are directed by the Government, his hours, his service, so that the whole man power and whole energy of the Nation is concentrated upon war.

We have only entered the first zone. England and France and Italy have entered the third zone, so that no industry in any of the warring countries now, except in our country, is permitted to spend energy except for war purposes, and no individual is permitted to exercise personal discretion, personal pleasure, and personal choice in what he does. I fear that we will have to come to that zone before we end this contest. It is difficult for us to understand that we may lose this war. We have so long exalted our own greatness and we are conscious of such strength that we somehow feel that this strength is going

to exert itself and win the war itself. It is easily possible for us to lose this war. We will not lose this war if we exercise our full strength, but if we dally about it we may lose.

Mr. Potter spoke of what the foresters have done - a noble and splendid part they are playing. We are all very proud of them. We, in our little ways, have done very much, at least it seems very much; but when you reflect upon what the civil population of the other countries have done and are doing, when you remember that England, France and Italy have sent about their last man to the war, it does not seem so much. Did you notice the other day that Mr. George announced a bill by the government to conscript men of 50 years? They have sent their last young man, and the same is true of Italy and France.

I was reading a story this morning of the women of France. They are not only doing the customary tasks of women; they are between the plow handles, they are repairing the streets. So are the women of England, because the men have all gone to the war.

Now, as I said before, we are proud of the foresters. We are proud of what the Department of Agriculture is doing in many of its activities. It is not a spectacular service, but it is real accomplishment of great good. But when this war is over and these men come back, I shall feel ashamed if I can point to no more than I have already done. Now some of us have kin there and we are proud to fly the service flag, but is that all we are going to do? Will we not undertake to match the sacrifices that these our foresters, our comrades, are now making in France with some other sacrifices? Will we let them come back here and applaud them and exalt them, and will we be satisfied to walk our ways with them hereafter, knowing that they have won this contest for us and we have made a few Liberty Loan speeches, knit a few garments - all very much needed - but that we have really not denied ourselves in any serious degree. Let us rather resolve that since we are not permitted to serve in the ranks where they are sacrificing, that to the limit of our endurance, as they are giving to the limit of their endurance, we will undertake to approximate - we never can equal - we will undertake to approximate their sacrifice.

There isn't any trouble about getting money. The United States has the power to get money. The government can take what it needs. It can seize what it requires, and it will take what it needs. There is wealth enough in this land, the wealthiest land on the earth, for the people of surplus accumulation to furnish all the required funds to maintain this war, but that isn't the kind of money we need because that isn't the kind of money that represents popular support of the war. There ought not to be any man, woman or child in this land who has not contributed, not of abundance but of what appears to be necessity, to this cause, because only by such contributions, only by such sacrifices will we really present, will we really mobilize, the spirit and heart of the Nation, without which our undertaking is sure to fail.

I haven't any hope of early German revolution. It seems to me that the Germans have lost, if they ever possessed, the power to resist. As I study their character and their conduct, it seems to me that they really endorse, tacitly if not positively or affirmatively, all the bestial things their Government and officers have done; and if they don't endorse them, then they have lost the power of resistance. There seems to be no elasticity in the German mind and spirit. Really I think they are of one mind with their masters; but assuming that they are not, anyway they have gone along these 3½ or 4 years without resenting things that have been done in their name and in their behalf. However, if anything in the world would contribute to German revolution, that might happily be developed if we succeed in arresting the tide of blood that is now flowing on the Western front, if, I say, following that we could by any possibility develop revolution among the German people, it would be by the exhibition of 100 millions of people in the United States pouring into the lap of the government all their treasure without solicitation. If, instead of holding meetings all over the United States begging the people to subscribe to Liberty Bonds, if instead of holding meetings all over the United States begging people to conserve food and increase food production, if instead of great campaigns to arouse the people of the United States and inform them, we could send the word that the people of the United States, 100 million strong, were flocking to their postoffices, to banks and to government agencies everywhere to pour out their money, I imagine it would have a fine

effect upon the German people. If there is any possibility of changing the current of mind of the German people, the best hope is by some achievement that will reflect the personal activity and personal endorsement and personal sacrifice of every man, woman and child in the Republic.

Now when these boys come back that you have known and loved, and that you will love more dearly hereafter, what are you going to be able to say to them? "What did you do while we were gone? What did you do besides wishing us well?" They will ask you these questions, and they will have the right. They will ask Mr. Potter, they will ask me, they will ask the Secretary. They may not approach the Secretary or Mr. Potter or me, but they will be asking in their minds and will want to see evidence of what we did to sustain them. Even if this were not at stake, even if our own freedom were not at stake - and may I digress just for a moment? I was about to conclude there, but I do not want to do it without reminding you of what very few people think of.

Freedom is so commonplace to us, so like the air we breathe, the water we drink, the movement of our hands, it is so second nature to us that we really don't appreciate what freedom means. We seem to think that the things we prize are health and wealth and comfort, and they more than anything else are the basis of endeavor. Why, ladies and gentlemen, if we could only be deprived of our liberties or freedom for 24 hours, we would come to understand that it is more precious than life itself. What is freedom? It is our right to assemble here this morning and talk about the welfare of our country; it is our right to enter this Service or leave it as we choose; it is our right to live in Washington or go to Philadelphia; it is our right to choose our friends, our companions and intimates; it is our right to elect what we shall wear, what color we prefer, to walk unmolested and know our lives are protected; it is our right to speak our minds freely; it is our right to think whatever we will. Just imagine for one moment that you could not utter a thought that your Forester did not approve. Imagine today that you could not walk the street without the consent of some public official. Imagine today that you were not permitted to choose which of two garments you would buy at the store, or how you would dress your hair, or how you would shave your whiskers, or any of the little things that are our daily habit. These things are in danger because this bestial thing with which we are contending is resolved to subjugate mankind. It is very hard for me to comprehend that a people as intelligent as the German people are really entertain the belief that they can rule the world. But we would be very foolish if we any longer shut our eyes to the demonstrated fact.

Poland has no public opinion. Rumania is not permitted to direct her smallest local affair. The poor Russian leaders, whom we may well call academic fools, were misled into believing that the Germans would keep their word, but no sooner was peace concluded than they continued to march onward and onward as far as they thought it needful in their further aggression. There is no liberty anywhere under the German flag except such liberty as the autocrat himself graciously grants. There is here no power exercised except that which we grant. There is no power there exercised except that which the sovereign permits. As surely as you sit here in this presence and we lose this contest, then these liberties will be denied us except to the extent that the German masters may think it wise to indulge us in certain privileges to keep us in good temper. But, you know, I think that we ought to make these sacrifices, we ought to contribute these loans to the Allies even if we were not engaged in the war. We profess to be a Christian people, we profess to believe in the brotherhood of man and the fatherhood of God. Our profession is a lie or uttered with idle tongue, with no basis in heart conviction, if we do not recognize our obligation to come to the relief of the suffering and starving people of this earth crushed under Germany's heel.

I never talk or think of this war that there does not come to my mind a story told of Mr. Hoover's Commission before we entered the contest. It was a description of the distribution of bread by the American Commission in Belgium by a newspaper writer whose name has escaped me at the moment, but whom I identified as one of the New York Times' trusted men whom I knew to be reliable. He

described the circumstances of daily distribution of bread with great detail, but the point of consuming interest was this. The children were lined up in front of the office and a committee of Belgian women went along the line and plucked out all the red-faced, strong children and left standing to receive bread only those that were pale and emaciated, because there wasn't bread enough for all.

Now, not to speak of infamies, not to speak of outrages, because that is not a subject for this company, just take the starvation alone. I heard from Mr. Walcott, of Mr. Hoover's office, the other day that he negotiated - he was with Mr. Hoover in the outset - that he negotiated with the German government to permit the American Commission to contribute something to the starving Poles. You know we have a couple of statues here of Polish patriots, one down on Pennsylvania Avenue and the other up on Lafayette Square; we owe something to the Poles. He negotiated with the German government to permit the Hoover Commission to contribute something to the relief of the starving Poles and obtained, after long controversies, a reluctant and conditional permission. He then negotiated with the French and English governments who were maintaining the blockade against Germany, and they very quickly and eagerly acquiesced. He came to the United States to arrange for funds, supplies and transportation, and of course got the formal approval already granted in heart by the American government. He then cabled the German government that all was in readiness to dispatch some food to the Poles and received a prompt reply that the German government had changed its mind. In subsequent conversations, I think he said with von Hindenburg or Bethmann-Hollweg, a man of no less distinction and power - this was long before we entered the war - the brutal statement was made that permission was withdrawn because Germany recognized starvation as its best ally, and if the Poles starved then that land would be occupied by Germans and become a part of the Fatherland.

Now if we, as I said a while ago, are more than professing Christians and professing humanitarians and if we really and truly believe in the brotherhood of man and the fatherhood of God, we will contribute to this cause although it isn't remotely possible that any harm will come to our land.

I alluded a moment ago to the debt we owe the Poles. Surely we haven't forgotten the debt we owe France. General Washington said that without their aid our cause would fail and that we were at the end of our tether. It was French treasure and blood that made this Republic and those privileges which we enjoy possible to us.

Ladies and gentlemen, one word more. This is a hard, cruel task that is laid upon us. I do not know how long it is going to endure, how much more sacrifice is going to be necessary; but we got this inheritance by sacrifice. We all love to trace our ancestry back to Revolutionary and Colonial days, and among the proudest of our possessions are pictures of our great-grandfathers who wrought this Republic. They made sacrifices. Have you forgotten the bleeding marches and starving days around Valley Forge? If they had not sacrificed and we had been permitted to assemble here this morning we would blush to remember them. Now if we do not sacrifice then our children and the children of free men everywhere will blush to remember us.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

April 29, 1918.

The Arkansas Forest

To the Arkansas Forest has gone a new Supervisor in the person of John L. Cobbs, Jr., of the Washington office. A Southerner, with his early training in the South, Mr. Cobbs finished his school work at the Forest School of the University of Michigan. Then followed two years of field work in District 1, two years of private work in the southern pine country and two years in Acquisition in the Southern Appalachians. This field experience was topped off by two years in the Washington office.

The Arkansas in the past has proved a difficult Forest. As first established it included a large acreage of private land. The scattered Government holdings proved impracticable to administer and several eliminations were made. June 11 entries were allowed, moreover, where there was no possibility of successful farming. Lands were fed to the hungry homestead seekers to the decimation of the Forest, but with no success whatever in establishing agricultural communities, or even successful individual farms.

It was obvious that if this policy were continued its certain result would be the final elimination of the entire Forest. A region with high potentialities for timber production and for stream protection would have to be abandoned with no possibility of agriculture ever attaining any solid development. The avoidance of such a blunder was imperative.

We took our stand on the principle that the region, so far as it is represented by the Forest, is of greater value for timber production than for farming. The wise course, therefore, was to keep the land that remained, and if possible increase the Government holdings until they should once more comprise all of the nonagricultural lands.

The new plan involves problems, but they are problems connected with the constructive management and development of a National Forest. The lands problem is not now one of further retreat before the demand for homesteads, but rather of acquisition by the Government of privately owned lands. The Geological Survey has reported that the protection of these watersheds is important in the control of navigable streams. The purchase of some of the private lands will, therefore, soon be recommended.

The silvicultural problems are unique and interesting. White oak, post oak, and black oak occur in merchantable stands, but the principal species is shortleaf pine, which germinates and grows with striking vigor wherever it escapes fire. Probably on not many other Forests does a species of such value tend to come in so generally and to grow so fast. It is a most promising tree both for the silviculturist and the lumberman.

In ranch management we have a problem the solution of which promises important results. Contrary to the general impression, the Ozarks produce good pasturage. The range, however, has not been much utilized. Then, too, the fever tick has never been put out of business. The tick, however, is soon to be eradicated under cooperative measures of the State and Federal Government. With this forward step the establishment of successful ranches in that section should become feasible.

The utilization of the grazing under good grazing management and the burning of brush in timber sales will help much to control fires; and fire is the hardest problem on the Forest today.

With the development of the Forest, greater stress must be laid upon improvements. The many miles of telephone line must be welded into an efficient system. The unspeakably bad roads must be replaced by a well constructed system of highways, serving not only the purposes of the Forest and local communities but as links in the several great highways which plan to touch the beautiful Ozark region.

This is a propitious time for the right sort of work in Arkansas. Few states have advanced more in material prosperity during the past ten years. Thirty-cent cotton, seventeen-cent hogs, and fifty-cent-a-dozen eggs are bringing wealth to the State, and with wealth is coming an awakening that makes for intelligent well-being. The interest in road development is of the deepest and best kind. It is paralleled by interest in education, sanitation, and general construction. All conditions are right for Arkansas, by establishing a sound State forest policy, to align herself with the States that are conserving and developing their forest resources. It is a good time for a forester to be there.

WM. L. HALL.

The Song of a Drafted Man

Here are some verses received by Louis C. Everard from a friend who has been called in the second draft. With the men of the National Army showing this spirit--and they are showing it every day--the worrying is for the Kaiser.

They've accepted me for the army,
The great American army,
The "little contemptible army"
That's serving over in France.

It may not have been in Nature's plan, -
I never was meant for a fighting man;
But I'll spring like any American
To stem the Hun's advance.

They said I was in a terrible plight -
Under weight and defective sight;
But they said, thank God, I was fit to fight,
And I'll make the most of my chance.

For they've taken me into the army,
The "little contemptible army,"
The great American army
That will trounce the Huns in France.

D.L.J.

Letter from French Orphan

The members of the Washington Office contribute to the maintenance and relief of ten French orphans. Following is a translation of a seven-year-old boy's contribution to a letter sent by his mother acknowledging the receipt of assistance for her family of four children:

"Dear Mademoiselle:

Two words to show you how happy I am to speak to you for a moment. I have not yet learned to write very well but I offer all my ability to you and at the same time thank you for the help which you are sending us. All my best wishes to you and those with you. I love you much.

Joseph Ajoux.

(Extracts from a letter from Lieut. E. L. Lindsay, Co. E., 10th Engineers, A.E.F., to a member of the Washington Office.)

Here goes a note to express my appreciation for your thoughtfulness and efforts in knitting and securing the socks which have just arrived. Under ordinary conditions I would write at least a six-page letter of thanks and then not be able to thank you sufficiently. But everything here is in a perfect whirlwind now and I am in it and "trying to beat the wind around." * * * *

"The men here all working hard and pulling together; all well, all cheerful and everybody getting plenty to eat, which accounts at least for a portion of the cheerfulness. The day shift of the mill is trying to cut more than the night shift and vice versa. Both crews are trying to cut more logs than the woods crew can get out. The woods crew can quit at 4:30 P. M. every day that they have 2,000 logs on the dock at the mill the previous day at 6 P. M. However, the mill is averaging about 27,000 ft. B. M., two shifts, and Wednesday they cut 36,000, which is going some for a 10,000 ft. mill. Needless to state, therefore, that the woods crew has been working until 6 P. M. with no Saturday afternoons off. They are still optimistic, however, and that optimism is worth a whole lot to me measured in logs. The more I see of other regiments -- Engineers, Infantry, Artillery, etc. -- the more convinced I am that "E Company" is the best company in the best regiment in France!

* * * * * * * * * *

Very sincerely,

(Signed) E. L. LINDSAY

Survey of Eastern Spruce Resources

The Office of Forest Investigations has since the first of the year been engaged in a careful study of the production of spruce in the East, with special reference to the supply of airplane material. The work has been done for the information of the Navy Department, which controls the buying of this stock in New England and New York. It is now proposed to carry the work further and cover the Appalachian Mountains and the Lake States. The undersigned members of Forest Investigations handled the work in New York and New England, and have left for the new fields.

A preliminary trip was made to the Madison Laboratory in order to get in touch with the latest results of the Laboratory tests of airplane stock. On the way east the Curtis plant in Buffalo and the Burgess Plant at Marblehead were visited. Maine, New Hampshire, and Vermont were the first states covered. All the important mill men and operators and most of the pulp companies were interviewed, or information obtained from them by correspondence.

In March reports were prepared giving figures for the normal yearly cut of spruce at the mills, the expected cut in 1918, the amount of airplane stock expected from the 1918 cut, the timber now standing of size available for airplane stock, and the amount of airplane stock expected from it. These figures show that while the available supply of this material is not as large as we would wish, yet there is a very appreciable amount to be had and that energetic action should obtain about double the present contracted supply. Owing to lack and inefficiency of labor and the unequaled severity of weather conditions this winter, the 1918 cut of spruce will be only about 75 per cent of the normal. The competition of the pulp companies is another factor which is retarding the production of lumber, and it is not impossible that the pulp industry will eventually force out the sawmill from the spruce field in New England as to all intents and purposes it has already done in New York.

After the completion of the work in New England the investigation was transferred to New York. The report on this State has just been completed. Conditions here are not as satisfactory as in New England. There are very few mills sawing spruce on any large scale, and most of the small mills are poorly situated or poorly equipped to saw much airplane stock. The pulp companies get almost all the spruce in normal operations, and even where pulpwood has been cut in log lengths the fact that it was peeled last summer and has checked in drying makes it unavailable for airplane stock in most instances. Also in New York a large portion of the most available spruce is on State lands, and its cutting is therefore prohibited by the Constitution of the State.

District 6 estimates the total Sitka spruce stand in Washington and Oregon at 10,949 million feet. The best available estimates for New England and New York give a stand of 25,500 million feet of spruce, almost entirely red spruce. There are also some good stands in the Appalachians. It should be remembered,

however, that probably half the eastern stand is only pulpwood size, bringing the saw log stand down to about 13 billion feet; also that eastern spruce is much smaller than Sitka and that saw logs will ordinarily not run over 24" D. B. H. The lower diameter limit assumed in making the Sitka spruce estimates is also a doubtful question, and it would be interesting if estimates of the smaller Sitka spruce were obtainable so as to make a definite comparison with the eastern stand. The point brought out by these figures, however, is that the total stand of Sitka spruce in the two western states mentioned is not nearly as large in comparison with the stand of eastern spruce as is ordinarily supposed.

Kenneth McR. Clark.

E. D. Fletcher

War Brevities

Inventions, or ideas of inventions, of military nature pertaining to the Army may be submitted by the inventor, if desirous to obtain consideration, to the Inventions Section, General Staff, Army War College, Washington. Submittal may be for test, development, or with a view to purchase or use.

Thirty-five new ships, aggregating 105,000 tons, completed during the winter and spring at the Great Lakes yards, have been put into service in the transatlantic trade. Breaking up of the ice now permits the movement through the locks which can be done without any alterations in the ships. Before the ice season, 43 ships, including 24 of new construction, had been moved out for winter service.

Manufacturers using walnut lumber have been asked by the War Department to refrain, for the duration of the war, from using walnut in the general industry and to use it for gun stocks and airplane propellers only.

The poor shingle will hereafter go unlabeled into the wide world. Shingles from mills of Washington and Oregon for the time being will not be designated by special brand labels. The daily shipment of 100 carloads consumes large quantities of flour to make the paste. The mill owners decide it is better to save the flour to paste the Kaiser rather than the labels.

The enemy is out-eating us in potatoes. The per capita weekly consumption has been:

United States	2.3 quarts
Austria Hungary	8 "
Germany	16 "

We can beat them at their own food -- which really isn't theirs -- it's a native American crop. We must eat more potatoes, and that right soon, or much of our record crop of last year will be wasted. Eat them instead of bread. Fight the enemy with potatoes.

Washington Office Notes

The editorial force has been increased by the appointment of P. S. Hargrove. Mr. Hargrove comes from Connecticut, where he formerly conducted a boys' school. He assumed his new duties on April 26.

The call of special war work has been answered by one more member of the Washington office. This time it is J. C. Nellis, who leaves the Service to become Secretary-Manager of the National Emergency Bureau of the Wooden Box Industry. All of Mr. Nellis' associates in the Service are more than sorry to lose him as a fellow worker, and their best wishes go with him to his new field.

The Madison Laboratory is largely represented in Washington this week. C. P. Winslow, L. F. Hawley, E. C. Sherrard, and D. G. White are all here. The first three are on the trail of ethyl alcohol and other wood distillation products, while Mr. White's business is in connection with the establishment of specifications for miscellaneous wooden products used by war industries.

H. S. Betts is back from a two weeks' visit to Madison. Mr. Betts brings back the usual tale of feverish activity at the Laboratory, in which he claims to have shared during his stay. He has many good things to say about the progress of the work there, but speaks in a harsh way of the Madison climate. The golf course, it seems, was covered with snow.

M. E. Fagan, Chief of Accounts, has gone to the Arkansas Forest to try out a contemplated change in the accounting system. The cheering word is given, however, that the changes are in form rather than radically changing the system which has now been in use for several years. The card system is to be replaced by a form in size similar to the Supervisor's Form BNF-Annual Allotment Estimate Sheet and for convenience binders will be provided making it possible to have the annual allotment estimate and the disbursing accounts all together in one compact volume.

H. G. Wood and G. W. Marshall, transferred from Acquisition, have left for the field on a two-months' study of the tannin situation in hemlock and oak. This work is undertaken at the request of the U. S. Shipping Board in an effort to stimulate home production and so lessen the import of this material, which amounts to about 95,000 tons annually.

Inspector J. W. Nelson has left on a three-weeks' field trip, which will take him to the Florida and Southern Appalachian Forests, to make an inspection of grazing conditions.

Grazing Examiner Mark Anderson has returned to Ogden after having spent about six weeks here assisting in the preparation of manuscripts bearing on grazing matters.

Miss Augusta B. Palmer, custodian of the lantern slide collection, has 17 nephews and grandnephews in the military and naval services. If any other member of the Service can beat this, we would like to hear about it.

The Forest Service was represented in the big parade of Liberty Loan buyers held in Washington April 26. The Service contingent was led by Associate Forester Potter. Our service flag was carried by the women members of the Service in line, which elicited the remark from a bystander, "What's become of all your men? Have they gone to war?"

Claude M. Ballard reports that subscriptions to the Third Liberty Loan by members of the Washington office now total $18,950. A week remains in which to surpass our record of $21,400 subscribed to the Second Liberty Loan.

Assistant District Forester John Kerr is back in town after a flying trip to Albuquerque. The Secretary has granted a hearing on certain grazing matters affecting District 3, as raised by Dr. Perrine and others, and Mr. Kerr was called back to Washington to be present at the conference.

District 1

W. W. Bennett has arrived safely in France and reports his transfer to the 20th Engineers.

P. S. Gray has left for a visit to his home in Westboro, Mass. Later he will take a course at Columbia University for machinist's mate in the Naval Reserve with possible later duty on a submarine chaser.

S. V. Fullaway has been appointed Forest Supervisor of the Nezperce. Supervisor C. K. McHarg will assume charge of the Helena Forest.

District 2

The headquarters of the Battlement Forest has been moved to Grand Junction, Colorado. The offices are in a recently completed Federal Building.

The timber within the Marshall Creek unit on the Cochetopa has been applied for by the Trinchere Timber Company. It is estimated that the area includes 3,269 M bd. ft. of sawtimber, 5,920 M linear feet of props and 191 M linear feet of mine timbers and has been advertised at $2.30 per M for sawtimber, 22 cents per 100 linear feet for props, and $7.05 per M linear for mine timbers.

Profitable destruction is the conclusion reached as to the result of the work of clearing out the files in the Supervisor's office of the Pike. The closed files occupied 1,560 inches at the beginning and but 666 inches at the

conclusion. Instructions for similar work on the other Forests in the District will be sent out at an early date.

District 3

A game protective association has been organized by the sportsmen of Gallup and vicinity. One of their first acts consisted in the importation of 200 quail for planting purposes.

Seventeen applications for fish fry have been sent to the Forester for forwarding to the Bureau of Fisheries. It is planned to stock 14 new waters and restock three waters where heavy fishing has prevented the fish from holding their own.

A commission as Second Lieutenant has been given George W. Kimball of Co. A., 10th Engineers (Forest) formerly 1st Sergeant. Kimball writes that they are all working hard and enjoying it.

Chief Clerk Pettis, of the Santa Fe, has received the medal won by his brother, who is a private in the 44th Canadian Infantry with a record of three years at the front, for "bravery in action."

A brother of Surveyor Lee O. Daves was among the American Engineers who took an active part in the battle of Cambrai.

District 4

R. A. Brown, formerly in the District Engineer's Office, has arrived safely in France. He is connected with the 23rd Engineers (Highway).

District Forester Kneipp, accompanied by H. E. Fenn, recently made a trip to the Dixie Forest for conference with the local livestock associations for possible increase of the authorization of cattle. It was found practicable to make but a small increase of 235 head.

Mountain mahogany is to be utilized as fuel, and thereby make a considerable saving in coal, in the vicinity of Ely, according to Supervisor Mott of the Nevada.

District 5

The 1917 lumber cut for California broke all records. Total cut was 1,424,000 M feet B.M., an increase of 4,000 M feet over 1916. This represents greater activity on the part of the individual mills, there being a decrease of 15 in the number of mills in operation. Redwood cut leads, followed in order named by western pine, Douglas fir, sugar pine, white fir, cedar, and spruce.

W. C. Hodge, Jr., formerly in charge of Information in the District Office, is now Assistant Field Auditor, Signal Corps, and stationed at the U.S. Aviation Field, at Mills, California.

Changes in personnel have come thick and fast within the past week. Resignations were submitted by Forest Ranger James U. Poore, of the Modoc, who is going to run for sheriff; Walter H. Coupe, of the Lassen; Philip Liff, Messenger, who goes as a clerk in the Mare Island Navy Yard, and Harold Sears (S. & T.) in the District Office, who after a visit home in Indiana will enlist.

District 6

Weekly bulletins on road conditions in or near the National Forests of Oregon and Washington will be issued by the District Office. All field men will furnish the necessary data.

Itsumi Koyama, of Osaka, Japan, called at the District Office. Mr. Koyama is on a 15,000 mile trip making a study of lumbering and mining conditions. The size attained by the Pacific Coast trees was a matter of particular surprise to him.

Twenty-nine sweaters were turned over to the Portland Red Cross Chapter by the Women's Service Committee of the District Office. The women are now knitting socks for the men in the Tenth Engineers.

The annual meetings of the members, followed by the annual board meetings of six fire protective associations of northwestern Oregon were recently held in Portland. Annual assessments were increased from one-half to one cent, making the average now about two and one-half cents per acre. Increases became necessary through increased cost of materials, wages, and supervision. Four associations ordered Osborne Fire Finders.

Forest Inspector Bronson spent most of the week in the District Office going over allotment estimates.

Three hundred acres will be reforested on the Mount Hebo project.

After a ten-days' trial, C. L. Byron was found guilty of using the U. S. mail to defraud. His specialty was locating settlers on public land, and he included several of the Forests of the District in his activities.

It is now Captain James Frankland, according to word received. Captain Frankland was formerly engaged in topographic work for the Forest Service and attended the first Officers' Training Camp at the Presidio. He is now stationed at Fort Stevens.

District 7

District Forester W. L. Hall has returned from a six weeks' trip to the Arkansas Forest. Mr. Hall reports conditions on the Forest and in Arkansas generally to be very satisfactory.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

May 6, 1918.

The Forest Regiments Make Good

From all the news that comes to the Washington Office, the Forest Regiments are doing their work in a fashion to make us all proud of them. They are certainly making the sawdust fly to good effect. Of lumber alone the output is now running into millions of feet monthly, besides large quantities of ties, fuelwood, poles, piling, and other material. In addition to carrying on a large number of individual operations for the supply of the needs of our own army, some battalions have been cutting for our allies. It will be remembered that the plan for a forestry force as a part of America's contribution to downing the Boches originated in the request of the British, followed by a similar request from the French, for a regiment to get out material for them. It is good to know we are fulfilling our promise of help to our allies, as well as providing for our own demands.

As the successive battalions of the 20th have reached the other side they have been assigned their positions in conformity with a general plan under which they were practically amalgamated with the 10th, under the command of Colonel Woodruff, who was therefore in charge of the entire work of the forestry forces. Recently he has been joined by Colonel Mitchell. It is presumed here that the two regiments will continue to be handled as a single organization. The Central Office or headquarters of the forestry section has had its force materially strengthened and is functioning smoothly, with ample help. Majors Greeley, Kelly, and R. C. Johnson are all in the Central Office, in charge of important branches of the work.

Walnut and the War

On March 21, F. S. Baker and the writer left Washington to study black walnut production. The purpose of the work, which is in cooperation with the Ordnance Department and the Signal Corps, is first to secure all possible information as to the walnut situation generally and later to assist in increasing the production of this wood for gunstocks and airplane propeller blades. Visits were made to the principal walnut manufacturers, about twenty in number, located in Ohio, Indiana, Kentucky, Tennessee, Illinois, Missouri, Kansas, and Iowa. All of these firms, with the exception of three or four veneer firms, are cutting gunstock blanks or propeller lumber or both.

On the basis of the best available information, the merchantable standing walnut in this country is estimated by the writer at 324 million feet. The chief producing States, in the order of importance, are: Illinois, Missouri, Indiana, Kansas, Kentucky, Iowa, Ohio, Nebraska, Tennessee, West Virginia, and Arkansas.

The total maximum production of walnut in this country in 1918 will, it is estimated, amount to approximately 90 million board feet, although unfavorable conditions may reduce the output to 80 million feet. Of this amount, 65 million will be produced by about twenty firms in amounts of from one to ten million feet.

The walnut cut by the large mills is now being used almost exclusively for war purposes, except the small amount of common lumber which is left after the propeller stock and gunstock flitch have been removed. Practically all of the clear lumber from the small mills is now going into propeller stock, but relatively few such mills are cutting the remainder of the logs into gunstock flitch. This loss in gunstock material is due to the fact that the small producer sells to lumber jobbers, who take the common lumber in order to get the propeller stock.

One of the great hindrances to walnut production has been the reluctance of owners of stumpage to sell. Many owners, however, on finding that the need for walnut material to win the war is urgent and that present prices are as high or higher than they have ever been are willing to dispose of their material. A small amount of walnut timber is held by owners who have shown pro-German sympathies, and it may become necessary to commandeer such stands.

GEORGE N. LAMB.

Assistant Secretary Ousley Sustains Service

The Service has been fully upheld by Assistant Secretary Ousley in the controversy with Dr. E. B. Perrin, of Williams, Arizona. Dr. Perrin, a large stockman, owns over a hundred thousand acres of railroad and State lands adjoining the Coconino, Tusayan, and Prescott Forests, including an old Spanish land grant known as the Baca location, immediately adjacent to the Prescott. Adjoining the Baca Grant, but inside the Prescott line, is an unsurveyed section presumed to be railroad land on which is the only stock water for a large area both on the Forest and on the Grant, the boundary between the two areas being fenced. The land about this water was squatted upon by a homesteader several years before the Prescott Forest was established. We have administered this unsurveyed land exactly as if it was Government land, and have recognized the squatter to the extent of issuing him a grazing permit for about 200 head of cattle. Dr. Perrin claims to be the owner of several sections of the unsurveyed railroad land used by this squatter, including the one upon which the water lies, and has been insisting rather strenuously that we recognize his title and evict the squatter. This, of course, we refused to do, pending the survey of the land and its identification in the usual way.

Meantime the Santa Fe Pacific Railroad, as legal successor to the defunct Atlantic & Pacific road, to which the original grant of land was made, questions the claim of ownership by Dr. Perrin to these lands, insisting the agreement of sale entered into between Dr. Perrin and the Receiver of the old A. & P. Railroad was not properly executed.

The action of the Supervisor in Dr. Perrin's case was sustained by the District Forester and the Forester on appeal. Dr. Perrin then took the case up personally with the Secretary, who placed the whole matter in the hands of Assistant Secretary Ousley. At the hearings, which covered the better part of four days, Dr. Perrin was represented by an attorney, while the Solicitor of the Department looked after the Government's side of the case.

At the conclusion Assistant Secretary Ousley upheld our policy of not recognizing title to unsurveyed railroad lands, sustained us in the recognition of the squatter as a permittee over Dr. Perrin, held that we had no legal or moral right to evict a squatter on unsurveyed lands even if the title held by the claimant was clear and free from all controversy, and that we had no right or power to force the squatter to furnish water, even though when surveyed the lands would be owned by Dr. Perrin.

Dr. Perrin's plea for the water was based upon the fact that he had bought and shipped in several thousand cattle from the drought-stricken ranges in southern New Mexico and placed them upon the Baca Grant, and that heavy losses were imminent unless the water on the squatter's claim could be used by this stock. Dr. Perrin insisted that the national needs made it right and proper for the Secretary arbitrarily to force the squatter to allow such use of the water. This the Secretary declined to do, though he promised to endeavor to secure permission from the squatter for Dr. Perrin to utilize part of the water for stock which could be grazed upon the adjoining grant lands.

The General Land Office has completed survey of the lands involved, but it will be some time before the plats are made and the survey approved by the Surveyor General. Even then the question of actual ownership will have to be settled between Dr. Perrin and the Santa Fe Pacific road.

There was involved in this case also the question of renewal to Dr. Perrin of permits formerly held by the Mt. Hope Sheep Company and it was the Secretary's decision that Dr. Perrin should be allowed a renewal of the G-7 permit which was based upon land owned by him and not by the company and that he should

also have a renewal of one-half the regular paid permit as this represented his share in the partnership which was dissolved.

WILL C. BARNES.

Colonel Graves Returns to Washington

Colonel Graves is back in Washington after a six-weeks' trip through the West. His itinerary included the Madison Laboratory and the six western Districts. Colonel Graves expresses himself as having found the spirit of the Forest officers everywhere fine. Not only are they very actively engaged with their regular duties, but they are also taking hold hard on whatever has to do with the winning of the war. In the course of his trip, Colonel Graves was called on for many addresses on the theme of the work of the Forest Regiments on the other side. In a subsequent issue we hope to have Colonel Graves' own account of his trip.

Washington Office Notes

Word has been received of the unanimous election as Honorary Member of the Royal Scottish Arboricultural Society of Edinburgh of Colonel Graves, in recognition of his services in forestry. This society is devoted to the advancement of forestry and in its membership of approximately fifteen hundred members includes its foremost authorities. Colonel Graves shares the distinction of honorary member with only one other American, Professor C. S. Sargent of Harvard University.

Supervisor E. Koch, of the Lolo Forest, is in Washington on special war detail to the Branch of Research. This detail, it seems, comes at a very opportune time, judging by the numerous clippings received covering his recent interview at Missoula in which Koch indicated that the application of women for fire patrol service would not receive favorable consideration by him.

Responsive to suggestions and innuendoes concerning inefficiency and lack of zeal, a dozen or more of the men of the Washington Office have nobly responded to the call for recruits in the surgical dressings work. Barring one casualty occasioned by a careless handling of an unaccustomed implement and necessitating first-aid treatment, the report from the front is to the effect that the first engagement was very successful. Additional recruits will be welcome.

Nineteen boundary cases, involving the issuance of proclamations or executive orders, are pending in the General Land Office. Over one million acres will be eliminated from the Forests concerned. Owing to congestion in the General Land Office, due to action on the withdrawal of rights-of-way and stock driveways under the enlarged Homestead Act, it has been impossible to get to these applications as expeditiously as desired. All western National Forest States, except Washington and South Dakota, will be affected by these various proclamations.

Road building by the Forest Service shows to date from the 10 per cent fund the construction and improvement of approximately 1,715 miles, of which 190 miles represent the work in 1917.

Under Section 8, the following table shows the progress made and indicates the number of projects in which final agreements are in effect or authorized:

	No.	Mileage	Est. Total Cost
Location survey	11	460	$70,339
Construction and maintenance ...	4	64	356,785
Survey construction and maintenance	38	822	3,339,841
Totals	53	1,346	$3,766,965

Subscriptions to the Third Liberty Loan by the 266 members of the Washington Office totaled $23,700, of which amount $9,050 was subscribed by 67 per cent of the 125 women employees and $14,650 by 63 per cent of the 141 men. The actual total subscribed will probably reach $25,000, as several members had their subscriptions credited elsewhere than to the Washington Office. Subscriptions to the Second Loan totaled $21,450.

DON'T YOU FEEL THIS WAY, TOO?

I'd like to shake hands with the man in France
Who's reading this verse of mine,
And buy him a drink, if I had the chance,
Of beer or some light French wine;
And when we had swallowed our beakers down
I'd like to pass out the smokes
And tell him the news of his old home town
And some of the latest jokes.

I'd tell him the pride that the neighbors feel
In having him Over There;
I'd tell him that Someone was true as steel,
Her name? Ah, that isn't fair!
I'd tell him how often they speak his name
At home, since he went away;
I'd tell him the restlessness, bitterness, shame
Of those who have had to stay.

I'd tell him we know he can turn the trick --
Deliver the goods -- come through;
I'd tell him we're all in the game to stick,
Whatever we have to do.
He knows we are grateful for what he's done;
He knows that we love his pluck;
I'd like, though, to tell him so, just for fun --
Well, brother in France, here's luck!

Kenneth L. Roberts.

District 2

Becky, 100 Per Cent Patriot and Some Chicken.--Justly dissatisfied with its contribution to the wool fund as compared with the other Districts in the Weekly Bulletin of March 18, District 2 has now set out to go over the top with a skein of yarn that will reach from Denver to Berlin.

Enlisting the aid of Becky Hoover, a thoroughbred of variegated plumage, the young ladies of the District Office set out two weeks ago to separate genus homo from his loose nickels and dimes. Said they, "Becky has left her home and fireside for the good of the cause. Now you men come through with a few chances on Becky at 5 cents per, the ante-bellum price of three Pittsburgh stogies." And genus homo fell for it. By cash, by mail, by express, and by freight came orders for chances on Becky, from all corners of the District, from the Mesa Verde to the Great Lakes; 6,058 chances. Count 'em! And that aint all (but keep this dark), three of our fairest and most highly respected young ladies on the night of April 9 lured fifteen of the male members of the District organization to a remote and secluded corner of the city where they actually sat in and banked a little game of penny ante with sky the limit until 3 o'clock the following morning, notwithstanding all clocks had been advanced to get everybody up before breakfast. For military reasons no names can be divulged until after the war.

As a climax to the local campaign, Becky was hostess at a farewell "soakum" party at the Adams Hotel on the night of April 16. Everybody was there, even Simpson from the Cochetopa, who came all the way from Saguache (wherever that is) to take Becky home with him; and everybody was soaked, first for having to walk up four flights of stairs (the elevator was out of commission, purposely or otherwise has not been ascertained); soaked for eats; soaked for playing cards; soaked for dancing; and soaked for having to walk down four flights of stairs. Having been "Bought and Paid For," lucky chance No. 1468, Becky left Denver April 17 via the Burlington to join Ranger McGraw on the Shoshone Forest. At this writing it is understood she will again go under the auctioneer's hammer on the Shoshone.

The net proceeds from the sale of chances on Becky and from her farewell "soakum" party are approximately $400. For the success of the enterprise, special thanks are due the management of the Adams Hotel, who contributed the use of the ballroom, and to the seven Fort Logan boys who furnished the music. It is hoped that this is but the forerunner of a long chain of successes in Becky's campaign in the interest of the wool fund.

Indications are that grazing receipts for 1918 will show an increase of $26,000 over 1917. Present authorizations cover 571,000 cattle and horses, 1,594,150 sheep and goats, and 3,550 swine, being an increase of 9 per cent in sheep and 8 per cent in cattle over 1917 allotments, and 18 and 16½ per cent increases respectively over 1916.

A total of 2,663 signs were completed in the four-months' run of the sign shop at Denver, the unit cost per square foot being as follows:

Materials (lumber, hardware, and paint)	12.31	cents
Miscellaneous expenses (crating, drayage, Forest officers' expenses and per diem)	9.47	"
Hired labor	11.58	"
Forest officers statutory labor	21.87	"
Making a total of	55.23	"

Five and seventy-one hundredths years represents the average period of service of the employees of District 2, on the basis of a compilation covering the 333 appointees now on the rolls. One hundred twenty-one employees, or 36 per cent, have been in the Service less than three years; 164, or practically half, not over five years; 129, or 39 per cent, have been over five years, but not over ten years; 40, or 12 per cent, have been in the Service in District 2 more than ten years. District and Assistant Foresters average seven years in the present positions; experts in Silviculture, 2-2/3 years; engineers and surveyors, 1-4/5 years; supervisors, 4½ years; deputies, 2.1 years; rangers, 4 years; Forest examiners, 2¾ years; Forest assistants, 2-2/3 years, and clerical appointees, 2½ years.

District 3

A. W. Snyder, formerly employed by the Sacramento Lumber Company, has been convicted of arson and sentenced to serve a term of from two to three years in the State Penitentiary. While he is charged with having set fire on National Forest land, he was prosecuted in the State courts for setting fire last November to three boarding cars on lands of the lumber company within the Lincoln National Forest, an offense carrying a severer punishment.

District 4

Labor shortage in Star Valley on the west side of the Wyoming Forest will be met by a cooperative arrangement between the farmers and the business men of Afton, whereby the latter have agreed to close up places of business on Wednesday of each week from April until October inclusive, in order to permit the fifty men employed in the stores to assist in the farm work. Dairying is the principal industry in the valley and the farmers are entirely dependent on local labor, which has been greatly lessened by men called to the colors.

Supervisor Clarence E. Favre, of the Humboldt, has been called to report for military duty on May 10. Deputy DeMoisy will succeed Favre and Grazing Examiner Palmer has been assigned to the Humboldt as Deputy.

Approximately one thousand complete quadrangle reports have now been placed on file in the office of Major Boyden, in charge of military intelligence work for the Western Department. Of this number, 90 per cent have been contributed by the Forest Service.

Two new cattlemen's associations have been recognized in this District--the Coyote Grazers' Association on the Powell Forest, and the Panguitch Cattlemen's Association on the Sevier Forest.

A pair of socks knit by Ranger Romero is on display on the bulletin board. It is hoped that the suggestion will inspire others to do some knitting, for there is constant demand for socks.

Contributions to the Letter Box from District 5:

"Despise the cat
In meat and wheat;
And toot the tute
In substitute."

"R is the beginning of Right,
The end of war,
And the finish of the Kaiser."

Dear Mr. Editor:

As between man and man
I ask you
How anybody
Could write anything full of
Human interest
Without having interesting humans
To write about.
Now just look at us out here in
San Francisco.
You have been in our
Midst,
And you know how we are,
If we ever do anything
Interesting,
You'd never know it
To look at us.
2½ of the girls are engaged,
But I can't tell you
Any more just yet.
(The ½ hasn't made up
her mind.)
And that is the only
Exciting thing I know
About us.
Now if we just had, say,
Long John Silver for Fiscal Agent,
And Becky Sharp for Mail Clerk,
And Marguerite Clark and
Constance Talmadge
Somewhere,
And maybe Kim and Huck Finn for
Messengers--
Then you could have copy
That would *be* copy
And if you could fix it up somehow,
We would *all* thank you.

District 5

C. E. Rachford is touring the State on "one-night stands," attending the series of meetings held in the interests of the cattlemen of California.

"Uncle Joe" Elliott has returned from Hot Springs, Arkansas, where he has been on timber survey work for the last six months. "Co'n bread and chicken" seem to have agreed with him, for he looks twenty years younger.

S. W. Wynne, formerly Supervisor of the Sequoia, has passed his examination, received a commission as Lieutenant, and gone to San Antonio, Texas.

The Sloat Lumber Company was the successful bidder for the 14,000,000 feet of timber on the Butterfly Logging Chance on the Plumas Forest. A circular mill having a capacity of 25,000 feet per day will be installed.

District 6

District 6 has furnished 6 plane-table outfits, 36 binoculars, and 9 monoculars to the War Department.

A carload of spruce and hemlock logs secured from the Multnomah Lumber & Box Company has been shipped to the Forest Products Laboratory at Madison for testing.

C. W. Zimmerman has returned to Seattle, again taking charge of the timber-testing laboratory at the University of Washington. During his absence he visited every important airplane factory in the country and spent some time at the Madison Laboratory.

Miss Erma F. Bell was instantly killed in an automobile accident on the Columbia River Highway near Portland, April 27, when the machine in which she was riding left the road and was overturned on a twenty-foot bank. The four others in the car sustained only minor injuries. Miss Bell came here from Washington about ten years ago and has been computing clerk in the District Office since that time. She leaves a sister in Iowa City and a brother somewhere in California.

Owing to the increase of the elk herd in the Portland city park and the high cost of feed it has been decided to turn them loose on natural range on the Oregon Forest. Ranger Dee Wright, cooperating with the local lodge of Elks, will supervise the moving of the band.

Donald R. Frazier, former guard on the Oregon, is reported to have been killed in an airplane accident in England. He was reputed to be the tallest man in the American Army, being six feet seven and one-half inches in height. Two of his brothers are also in the military service.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

May 13, 1918.

White and Norway Pines in the Lake States

In connection with the studies which the Office of Forest Investigations is conducting of the supply and production of various species of present or probable future importance for war purposes, the writer has just made a study of eastern white pine and Norway pine production in the Lake States, with special reference to the upper grades, which might be used as a spruce substitute in aircraft construction.

It was found that Michigan is almost entirely cut out, the logs now coming to the mill being salvaged from old operations which passed them up as too poor in quality or too small for use. In the Northern Peninsula and in Wisconsin, the best has been culled out of the stands. The best remaining pine is in mixture with the hardwoods, logs from 3 to 4 feet in diameter coming to the mills occasionally. The bulk of the lumber from this region, however, is of the middle grades.

Most of the standing pine is in the northern counties of Minnesota and is in the hands of a few big operators. Many of the large mills are practically cut out, and some are barely able to continue operations by buying small lots of logs from the homesteader or from scattered small holdings. The Minnesota pine is much smaller than the old stands of Wisconsin and Michigan, the forest is more open, and the trees are rougher and of a correspondingly lower quality.

Estimates of the stand of white and Norway pine give Michigan a stand of approximately 450 million feet, Wisconsin 1,200 million, and Minnesota 8,000 million feet. Michigan's cut in general is of very little value because of its poor quality, and the supply at the present rate of cutting can not last more than ten years. Timber from Wisconsin averages much better than that of Michigan in size and in quality, and will last about as long. In Minnesota, the longest possible life figured by any of the large mills is twenty years. The greater part of the best stands, it is thought, will be cut out at the present rate inside of fifteen years.

The labor situation and market conditions have been keeping rather close company, a shortage in the labor supply being taken up to some extent by a decrease in the demand. At the present time the cut is about 25 per cent below normal. Much of the decrease in output is due to the shifting of men from one camp to another. The old time lumberjack is now being gradually replaced by Central and Southern European labor which is low in intelligence and efficiency.

It is estimated that the production for 1918 of white and Norway pine will approximate 950 million feet, of which 550 million feet will be produced by twelve operators, the largest single operation cutting 180 million feet.

E. N. MUNNS.

Aggressive Action Solves Difficult Game Problem

In the face of some rather unusual difficulties, game protection on the Minnesota National Forest has been pretty well established. Cass Lake and the surrounding territory have been striving hard to build up a summer tourist trade and to secure a reputation as a good fishing country. The main stumbling block has been the fact that the hunting and fishing rights of our Indians have never been definitely determined. The Forest Service has taken the stand that the Indian is amenable to the State Game Laws. The Indian Office tentatively

agrees with the Forest Service, but has never instructed its agents to this effect, and the Indians, who look to their agents for guidance, feel that in the absence of such instructions they have the right to hunt.

That they do not possess special hunting rights has been impressed upon the Indian in two instances. An Indian and a white man were arrested for using nets. The Indian was a little above the average, spoke English fluently, and understood legal proceedings. It was intended to make this a test case, but the Indian at the last moment "spilled the beans" by pleading guilty. The white man naturally had to follow suit. The knowledge that this Indian, somewhat of a leader, plead guilty and paid his fine spread among the Indians and somewhat increased their respect for the law.

While repairing a telephone line in October in company with two rangers, we found the track of a wounded deer. Following this track, we found the deer. The hunter's track led back to the road and was lost there. At a hunter's shack on the lake nearby we found a white man and his three half-breed sons. When asked if they knew anything of the deer they professed ignorance. I recalled his previously made statements that his boys had the right to hunt, and I invited one of them to claim the deer. The invitation, however, was not accepted. They were then told that they would be given until eight the next morning to get out; otherwise they would be arrested on "general principles." On our return to camp next morning, we found that they had left the evening before. We took the deer to Bena Indian headquarters and made public the whole story. This spread among the Indians and the fact that the white man, Tibbetts, and his breed sons didn't care to fight caused many of the Indians to believe that our case was not all bluff. Since then we have not had a single report of illegal killing by the Tibbetts family, which formerly did about as they pleased.

The stopping of illegal netting and the sale of fish proved an interesting game. It was not the desire to stop Indians from netting fish for their own use, but we did not want them to make a sales business out of it. The first step was to get the white men's nets, next to get the white men that were using the Indians to net for them off the reservation.

It was practically impossible to get the men actually lifting the nets, as the lifting was done at night and it would have required a steady watch. The next best was to get the nets, and this resulted in an interesting game of hide-and-seek. When we first started the campaign, nets were set with stakes above water. These we easily located and confiscated. The next move of the netters was to saw the stakes off at water level. This necessitated more careful search on our part, but all the time we were gaining knowledge of the best fishing grounds and the most likely locality for nets to be set. Their next move was to use a short stake and then drive this with an iron pipe with a plug in it about a foot from the end. This placed the stake well under water. Our recently gained knowledge of where nets would reasonably be expected to be set for good fishing enabled us, by using a line with heavy hooks on it, to pick them up. By using a launch or canoe, the fishing grounds were gone over quite easily.

The loss of their nets finally discouraged the white men. They then acted as agents for the Indians. The main buying outfit was located at Winnibigoshish Dam, where a tent outfit had been put up on Forest land. They were refused a permit and given a time limit to get off. It was anticipated that they would move on to adjacent State land, or possibly to an Indian allotment. An order for them to move off of State land was secured from the State officials, and a deputy game warden and a representative of the Indian Office were taken along on the day the time limit was up. As the outfit moved off of Forest land on to State land, I dropped out and the State man assumed control. When the fisherman was notified to move off of State land he said he would move on to the Indian allotment and fool us. He was then informed that the allotment was closed to him. He moved the next day, and as soon as the State man learned of his destination, a tip was sent to the warden for that district, who met the train and advised him to keep moving.

This follow-up system and close cooperation between State and Government officials has eliminated to a great extent the undesirables and has brought to the attention of the better element the necessity for game protection.

Coincident with this work was the organization of a Rod and Gun Club and the establishment of the Star Island Game Preserve upon a petition of local citizens.

The State has established a camp on Cass Lake where spawn is secured and in return the lake is regularly stocked with fry from the State hatcheries. Under these conditions, with illegal netting eliminated, Cass Lake will always afford good fishing.

G. E. MARSHALL.

Legislative Matters

Congressman Keating of Colorado has introduced a bill which would enable the President, upon recommendation of the Secretary of Agriculture, to add certain grazing lands to the San Isabel and Cochetopa National Forests, for the purpose of administering, protecting, and improving the range. In its provisions the bill is very similar to the one introduced by Congressman Taylor of Colorado, providing for additions to the Cochetopa and Gunnison National Forests.

Congressman Peters of Maine has introduced a bill providing for the creation of the Mount Desert National Park. This park would include the Sieur de Monts National Monument, situated on Mount Desert Island, and authorize the Secretary of the Interior "to accept, in behalf of the United States, such other property on Mount Desert Island, including lands, assignments, buildings, and moneys as may be donated for the extension and improvement of said park."

Congressman Hawley of Oregon has introduced a bill to add to the Crater National Forest certain lands on the watershed of the city of Ashland, which have been recovered from the O. and C. railway grant. He has also asked for information regarding lands recovered from the O. and C. railway grant on the watershed of Oregon City, Oregon, and not inside the National Forest. The Forest Service will suggest to Mr. Hawley that the legislation in each case should add to the National Forest all the O. and C. railway grant lands recovered by the Government and lying upon these watersheds. Although already inside the Forest boundaries, these lands when recovered by the Government do not necessarily become part of the National Forest, but remain subject to disposition under the terms of the Act of Congress providing for their recovery.

War Brevities

The daily casualty list published by the War Department announces the death of Horace B. Quivey of the 20th, who was formerly on the Hayden Forest. No details as to the cause of death were given.

Washington Notes

Many owners of walnut timber have sent word that they are willing to put their trees at the disposal of the Government, as their part in winning the war. County Agent Johnson of Floyd County, Kentucky, reports their willingness to have found expression in "Tell Uncle Sam to come and get it," and County Agent Wiley, of Grayson County, Virginia, reports that the farmers are not particularly anxious to sell, but that they are all willing for almost any sacrifice if they feel they are assisting the Government.

Raphael Zon has returned to the city from a six-weeks' field trip to Districts 5 and 6.

War Savings Stamps and Thrift Stamps to the amount of $20,000 have been purchased by members of the Washington Office. Mr. Ballard says that he has a supply of stamps on hand.

Word has just been received of the death on May 5 at Montreal, Canada, of Mrs. J. Van Rancke. Mrs. Van Rancke was a member of the Branch of Research in the capacity of translator.

J. G. Peters, Chairman of the Bethesda Farm Help Association, reports that excellent progress is being made in enrolling business and professional men as emergency labor to assist the farmers of Montgomery County, Maryland, in harvesting farm crops this year. Mr. Peters doesn't say whether he himself is going

to wield a rake (or whatever implement you harvest crops with) but if he fails to show up at the Office any time this summer, we are going to assume that he is getting in the wheat.

Cooperative agreements have just been made between the Forest Service and the State Foresters and Extension Divisions of the Agricultural Colleges of Maryland and Virginia, to promote and assist in the marketing of farm timber. The technical control of the work rests with the Forest Service and the State Foresters, whose representatives give specific demonstrations under the auspices of the county agents.

The work in surgical dressings, carried on at the Atlantic Building under supervision of members of the Forest Service is participated in by 71 individuals, 45 belonging to the Forest Service and 26 to the Bureau of Markets.

District 2

Several of the western roads are becoming interested in getting local tie timbers in Colorado and Wyoming, and detailed information as to tie operations and the amount of timber available has been furnished their representatives.

In response to an application for purchase, an appraisal covering 2,200,000 bd. ft. of white and Norway pine sawtimber, 16,300,000 bd. ft. of jack pine mine timber, and 21,000 cords of spruce pulpwood on the South Kawishiwi unit on the Superior Forest will be submitted to the Forester within the next few days.

For the first time in this District and possibly in the Service, Forest officers will employ the use of a tractor with grader and trailer and a two-man crew this season on roadway maintenance work on the Pike Forest. It is estimated that with this equipment 200 miles of roads within four counties on the Forest can be kept in repair at a cost of $15 a mile. The cost of equipment was $2,000.

Success has at last attended the efforts of this District to obtain for the Colorado State Museum specimens of the "camp robber" -- Rocky Mountain jay. From the Arapaho Forest was obtained a nest, two eggs, and one parent bird, and from the Cochetopa, a nest, three eggs, and one parent bird. In each instance the discovery of the nest was made by private individuals who made report to the Forest ranger.

These specimens have great scientific value and it is stated that there is but one other exhibit in existence in the United States. The camp robber is a common visitor around camps, becomes quite tame, and is in fact a good deal of a nuisance, but very elusive, wily, and secretive as to its nesting place, so that efforts to locate nests have been unsuccessful.

District 3

It is related of Nezahualcoyotl, who reigned as King of Tezcuco, in Mexico, about 1425, that one day while walking incognito near the royal forest of Tezcuco, which was very extensive and guarded by very severe laws, he met a boy gathering sticks on an open field. The king inquired of him why he did not go into the neighboring forest, where he could find a plenty of them. The lad answered, "It is the King's forest and he would punish me with death, if I trespassed there." "What kind of a man is your King?" asked the Monarch, willing to learn the effect of these prohibitions upon his own popularity. "A very hard man," answered the boy, "who denies his people what God has given them." Nezahualcoyotl urged but the boy sturdily refused and the next day the King caused him to be brought before him and rewarded him. Thereafter the forest laws were mitigated so as to allow any persons to gather any wood they might find on the ground provided they did not meddle with the standing timber.

On April 23 Gasper Suarez was arrested by Rangers Linton and Marlowe for grazing 900 ewes and 600 lambs owned by J. E. Newman of Winslow, Arizona, on the Prescott National Forest without permit. He was bound over to the U. S. Commissioners at Prescott and placed under $500 bond awaiting trial before the U. S. District Court at Prescott next September.

"SWAT THE FIRE BEFORE IT GETS A LONG START" and "CUT DOWN ELAPSED TIME" are the slogans for the 1918 fire season, and as a possible aid in quick detection of fires each lookout will be supplied with a map presenting graphic pictures of the country visible from the station.

Systematic clearing out and maintenance of existing trails do much to convey to the public favorable impressions of the activities of the Forest Rangers and as, after all, such impressions are about all the public gets of the work, every ranger's plan of work should provide definite time for this work.

District 4

The Nebo Division of the Manti Forest has been transferred to and will be administered by the Uinta Forest.

Report is made that all but one of the seven deer hybrids born in a flock of sheep on the Toiyabe Forest and commented upon so profusely in various publications, have died. The last one is in a weakened condition, so that it is safe to predict the end of "dear" mutton in District 4. The head of one of these animals will be sent to the Smithsonian Institution for examination. Perhaps all doubts and fears of skeptics will vanish when the experts of that Institution have had their say.

The Uinta Forest describes one of its alien permittees as follows: "He is a German. Has taken out his first papers. He is an inoffensive old man. He is taking out Liberty Bonds and purchasing Thrift Stamps. He remarked, "If Uncle Sam needs me to fight, I will go."

A clerk whose home is in San Diego, California, was recently appointed on the La Sal Forest. He made the journey from San Diego to Moab, gave the town the once-over and decided that home looked better to him; so he took the first stage out. Supervisor Locke, who needs clerical help badly, thinks this is no joke.

The Idaho State Game Department is being requested to distribute 12,000,000 trout fry in the streams on the National Forests in Southern Idaho.

Grazing Examiner Mark Anderson has returned from a two-months' detail to the Washington Office. About June 1, Anderson will go to District 1 to make extensive reconnaissance of the unused sheep ranges in that District during this field season.

Stock losses, amounting to $1,600, occurred on the Terry Division and Shoal Creek winter range of the Dixie, caused by a wolf, but recently captured. A bounty of $150 was paid the successful hunter.

District 5

Brush burning work on timber sales show an increase in the percentage of brush burned and of the cost borne by the operators, as indicated in the following:

	1915	1916	1917
Acres burned	2,509	7,402	6,768
Unburned	2,928	2,967	1,404
Per cent burned . .	46	65	83
Division of costs--%			
Operator	75	73	79
Service	25	27	21
Average total cost in cents per acre	68	52	48

Labor shortage near Topaz, California, has been met in a very practical manner by W. M. Cunningham, who has offered employment to all able-bodied men taking agricultural courses at the State Universities of Nevada and California for the four months' vacation period, at the going rate of wages for ranch workmen.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

May 20, 1918.

How Big Are We?

Some one very truthfully has said that "a little man in a big job can never stretch himself to cover the job, but a big man can always bring his job to his own size." We can never be as big as our jobs until we make our jobs as big as ourselves, and we get not only our pay from the Service but our reward in general from Nature and Society, not so much on the basis of what we do but *how* we do it. We will never get any place by doing a piece of work simply because the Manual or our boss says to do it, but if we learn to *like* doing it and then do it for the thrill of accomplishment, it will surely give back when tackled in that spirit; we are on the high road to success and will find that the most monotonous sort of routine work becomes a source of pleasure.

This world we live in drives a close but just bargain. It gives us back exactly what we put into it. If we tackle the jobs it has for us with a grouch, we get back a bigger grouch. If we tackle them as if they were the only things topside of earth really worth doing, then we get back the reward than which there is no greater--that of genuine satisfaction in a worth while job well done.

The Forest officer who takes a real pride in every detail of his work and whose eyes sparkle with enthusiasm with every task he undertakes is living a larger life than many we look up to as big men, and the bigger we get to be ourselves, the better we will realize the truth of this. LET'S GROW!!

M. R. TILLOTSON.

From District II Bulletin

What Distinguishes a Forest Officer

I wonder if anyone has ever examined the scales in which a community weighs the local Forest officials. They are, no doubt, rather complicated and perhaps they will vary somewhat, according to the ideas of the individual or the leading occupation of the locality, but a few general principles will probably apply almost universally.

Last summer a writer with a wide reputation for her stories of human interest told me that she could pick seven out of ten Forest Rangers without seeing them at work, whether they wore the "Forest Green" or not. I immediately asked "What's the matter with the other three?" and she answered "That is a question I am asking you." Since I have been told that clothes do not make the man, I have been hunting for an answer elsewhere, but have come to the conclusion that while that old adage may be true, a man is judged by his choice in selecting clothing, which amounts to about the same thing.

An eminent engineer told me once that he always gave the question of personal appearance considerable weight when employing a new man, because a man who is careless or "sloppy" about his personal appearance is almost sure to be the same in his work. Can it be possible that the public unconsciously shares his views? We will all agree that clothing should be suitable to the work the wearer must perform. Then, since a ranger's work differs somewhat from that of the rancher, a cowman, miner, prospector, or lumberjack, why should he not dress a little differently?

It is true that a soldier is not so easily distinguished in civilian clothes as in his uniform, yet you will all admit that years of military training which, above all, requires a pleasing personal appearance, can not be hidden by the clothes of a working man. We are told that personal appearance means so much to the morale of troops that the Canadians shave every day, even when they are hiding out in the shellholes in "No Man's Land." If this will make a soldier fight harder, it might also help a ranger in this work.

We all know how particular our Uncle Samuel is about the personal appearance of the men who represent the military arm of our Government. Fancy, if you can, a regiment of soldiers on parade wearing clothes similar to those on display at "Ikey's" Secondhand Clothing Emporium, and with a week or ten days' beard and long ragged hair. Would you be as confident of their ability to represent our country and to fight for it, and would the sight thrill you as when the column of neatly dressed, clean-shaven and clean-looking men goes swinging past?

Mr. Forest Officer, do you realize that you are on the firing line every day and that you represent an arm of the greatest and best Government on earth? That like the soldier you must inspire confidence and make the people with whom you come in contact feel that the Service you represent is efficient and in the hands of the right kind of men? Also, that a clean-shaven face and a hair-cut will not look out of place no matter what kind of clothes you wear?

Do you want to be picked out with the first seven and classed as a little above the average, or would you prefer to be lost in the common herd with the other three? Think it over.

A Guilty Supervisor.

Major Greeley Sends Greetings to his Service Friends

April 28, 1918.

The ambulance robe arrived safely yesterday and will be shortly on its way to the principal field hospital of the 10th Engineers.

You Forest Service women are certainly the bunch of indefatigable workers for the comfort of the boys over here, and I can assure you with all my heart that we all appreciate it mightily. Our men suffer more from lonesomeness than anything else and the mere receiving things from the thoughtful friends at home is a great boon in itself, to say nothing of the comfort of wearing them. Here's a tip in that connection: If articles are uniformly addressed to Headquarters 10th Engineers, or Headquarters 20th Engineers, they will reach our men more surely and much more promptly than if sent through the Red Cross or any other of the special relief organizations. It will be the same with anything addressed to me or Col. Woodruff or Col. Mitchell, as we are all here together with the Headquarters of the two forestry regiments.

We are making the saws hum these days and cutting lumber and ties faster than we can find cars to ship them in, but most of us wish at that that we were up north with the British. I have just had a wonderful visit to a bit of the English front and heard the shells whistle. But the turn of the Americans will come yet and we will be ready for it.

Please remember me warmly to the old Service friends.

Sincerely yours,
W. B. GREELEY.

Associate Forester Potter Leaves on Field Trip

Associate Forester Potter has left Washington on a field trip which will probably extend over a period of four months. The first stop will be at Denver, where consideration will be given to the question of grazing sheep on the Black Hills, as again raised by the sheepmen of Wyoming adjoining the Forest. From there Mr. Potter goes to Districts 4 and 1. In the latter District he will make extensive field investigations of grazing conditions on the Custer and Gallatin Forests and also in the white pine areas in the northern Idaho Forests, on which there has recently been a considerable increase in the stock allowances and where the utilization of the forage resources is complicated by the question of white pine reproduction.

Mr. Potter will then visit District 3, where he will also make extended field inspection of grazing conditions on several of the Forests.

Third Liberty Loan

Subscriptions to the amount of $435,450 were made by the members of the Department of Agriculture in Washington, participated in by 4,234 employees. Men subscribed $308,300, and women, $127,150.

As previously reported, the employees of the Forest Service in Washington subscribed $23,650. Complete returns have not been made by the field officers, thus making it at present impossible to give the total figures for the Forest Service.

It has been very gratifying to learn of the active part the field officers generally have taken in the campaign for making the Third Liberty Loan a success. The field men have served as Four Minute speakers, chairmen of county committees, and in fact in so many different capacities that it is not possible to enumerate all nor indicate the individuals participating.

Boy Scouts Will Locate Walnut

President Wilson has called on the Boy Scouts to assist in making a census of black walnut trees. Colonel Graves has written the Boy Scouts setting forth the need for this assistance. Special report forms have been prepared for the use of the Boy Scouts who will submit them for tabulation to the Forest Service, which in turn will make report to the War Department.

Municipal Fuel Yards

The State of Mississippi, on March 21, 1918, enacted a law authorizing the establishment and maintenance of municipal wood and coal yards, during the period of the present war and for one year thereafter.

This is stated to be the first legislation of this kind by any State and is occasioned by the fuel stringency of the past winter and as a possible means of forestalling a recurrence this coming winter.

Municipalities taking advantage of this law may provide the necessary machinery to purchase, transport, sell and deliver fuel and are authorized to use for this purpose general municipal funds and also to borrow money if necessary. In case of the latter ten days' notice of the contemplated step must be given by advertisement, setting forth the amount to be borrowed and the rate of interest. In the absence of any protest no further action is necessary and steps may at once be taken to establish a fuel yard, but in the event of protest, provided same is made by 25 per cent of the qualified electors of the municipality, the question of the loan must be submitted to a vote, and for approval requires a majority of the qualified electors voting at that election.

War Brevities

White oak is to be reserved for the manufacture of furniture and agricultural implements, according to J. C. Woodhull of the War Trade Board, and no export of white oak railroad ties and ship timbers will be permitted unless for war purposes.

J. C. Nellis, now Secretary-Manager of the National Emergency Bureau of the Wooden Box Industry, seems to be kept busy in his new position. Recently he took active part in the hearings to protest against the discrimination against nailed boxes for export canned goods. Figures had been submitted to the War Department by the Bureau of Standards showing that by the use of wire-bound boxes as against nailed, there would be a saving of 5 per cent in tonnage space. Nellis controverted these figures and showed that extensive experiments made in the past by the Forest Service indicated that there was no substantial variation and that wire-bound boxes had no distinct advantages. As a result of the hearings, nailed boxes will probably be continued to be accepted for foreign shipment.

Two million pounds per day of fresh beef is consumed by the Army, requiring the slaughter of 4,000 cattle. Careful inspection is made from the hoof to the mess tin of the soldier, in order to prevent the possibility of furnishing any meat unsuited for consumption.

War Brevities (Continued)

Approximately 3 billion feet of pine and spruce lumber is reported to be on the sticks in Finland, available for exportation upon the cessation of hostilities. Whether this preparation for participation is meeting the general world demand for timber results in a profit for the operators will depend upon the fluctuations in the sale of exchange at that time.

The price of wool has been fixed by the War Industries Board, taking as a basis the scoured value in Boston, July 30, 1917. Agreement has been made for growers and dealers to deliver and distribute the new clip by the usual trade channels. The Government will have first call and distribution of any surplus for civilian use will likewise be controlled. Special efforts have been made to prevent speculation. The full schedule of prices has not yet been published.

Washington Notes

Don Carlos Ellis, in Charge of Educational Cooperation in the Forest Service, and on detail to the Secretary's Office for some time past, has been designated Special Assistant to direct the motion-picture and correlated activities of the Department, under the supervision of Assistant Secretary Ousley and in cooperation with the Committee on Motion Picture Activities.

J. G. Falck, after a visit of several weeks to this office and several of the Eastern Forests, has turned westward for Ogden. It has not been ascertained whether he discovered that any Government property has been lost since his previous visit; it is known, however, that various members here are forwarding personal property lost or left by him, due no doubt to his haste in getting away.

Arthur W. Sampson, on detail to Washington since early in January, has left for the Great Basin Experiment Station, of which he is in charge, going via Ogden for conference with the members of the District Office.

B. L. Wheeler, in charge of Boundaries and a member of the Forest Service for the past ten years, has resigned to accept a position as Engineer with the Du Pont Company. He will be stationed near Nashville, Tenn., where the Du Ponts are erecting a $90,000,000 plant. Wheeler was the guest of honor at a luncheon prepared by the ladies in Lands, who not only very successfully and pleasantly transformed the typical Atlantic Building room, but also provided an endless supply of good eats.

J. W. Nelson, after a few days' stop in town from a four-weeks' trip to the Forests in the Southern Appalachians, has gone to the Monongahela Area for a ten days' trip. He reports that in the South everyone is doing his utmost toward winning the war.

R. F. Hemingway has been appointed to work in Research and assigned to field work in Pennsylvania on the tannin study.

Some considerable knitting has been done by Miss B. E. Adams, she having to her credit 60 pairs of socks for the Forest Regiments and Red Cross. Judging by the enthusiasm and dexterity with which the work is being accomplished, a supplementary report of further accomplishment can be expected at an early date.

Captain Smith, alias Mark Smith, formerly property clerk for the Forest Service at Ogden, is in Washington on duty with the Engineer Reserve Corps. Under present duties he is buying supplies for the regiments going to France, and as he is located in the same office with Captain George Bentley, doubtless other purchasing officers are having a hard time finding anything left to buy.

District 1

Supervisor W. B. Willey has been transferred from the Clearwater to the Jefferson, being succeeded by R. A. Hamilton who has been deputy on the Deerlodge.

Supervisor White of the Bitterroot will also be in charge of the Lolo during the absence of Supervisor Koch who is on detail in Washington to Research.

District 2

District Forester Riley has been designated by the Forester to act as his personal representative to work out a game conservation policy on the National Forests, starting in with the determination of a policy for handling of the elk in the Forests surrounding Yellowstone National Park.

R. F. Feagans, Assistant to the Solicitor for this District, has submitted his resignation. He leaves the Service to take up private practice. Chas. S. Brothers, now in District 5 will succeed Feagans.

Timber sale receipts in District 2 on May 1, amounting to $224,140, were 50 per cent higher than at the same time a year ago. These receipts include $34,280 from sales on the Minnesota Forest, where through the decision of the Attorney General last fall the Service has been authorized to make sales of dead and hewn timber, the receipts from which go to the Chippewa Indians.

A contract was let during the week with a local firm for 14,000 9 x 12" fire posters in five different forms; 4,000 4 x 5" signs, warnings against mutilation and destruction of Government signs and other property; and 12,000 fish and game law cards for distribution and use throughout the District.

"Clean-up" week in Denver was the occasion for the moving and rearrangement of nine of the twenty-two offices and sections in the District headquarters. The recent readjustments consolidate the several previously scattered sections of the Office of Operation and will doubtless be decidedly beneficial all around. There will still be congestion in some of the other offices, especially during the winter months.

District 3

M. V. Talbott, grazing examiner, has submitted his resignation and will enter the next training camp.

The U. S. Circuit Court of Appeals, sitting at San Francisco, has sustained the injunction secured by the United States against ex-Congressman Cameron, requiring him to remove the improvements from and preventing his further use of the Cape Horn mining claim near El Tovar, at the Grand Canyon. The case was argued last February by Messrs. Seth and Cheney.

District 4

L. J. Palmer and B. S. Martineau, grazing examiners, have resigned from the Forest Service to enter the military service.

There will be much activity in road work in this District during the coming season. In making plans careful consideration was given to the principle that no work be done which might in any way interfere with labor, supplies, and materials needed for war purposes. The plans contemplate 9 survey projects, 4 preliminary investigations and reconnaissances, and 4 construction projects under Section 8. Under the 10 per cent fund there will be 12 preliminary investigations and reconnaissances, and 5 construction projects.

Trout streams on the National Forests of Utah will be restocked in accordance with a systematic plan outlined by the District Office and adopted by the State Fish and Game Commissioner. About 300,000 fingerlings will be distributed during 1918, which amount will be increased to an annual distribution of about 1,000,000 fingerlings during the next five years.

District 5

The Laguna Road and Recreation Area was recently visited by T. W. Shearman, of the Secretary's Office, Washington, accompanied by Acting District Forester Headley and Supervisor Tillotson. Members of the San Diego County Board of Supervisors and of the City Councils were also in attendance.

R. F. Hammatt assisted a representative of the Tam Film Company in taking moving pictures of the 1,500-acre burn on the Twin Rocks Area on the California Forest. In cooperation with the stockmen of the vicinity, the brush on the area was burned to increase the carrying capacity of the range.

Influenced by the cosmic tips of this District, the suggestion is made that traveling Forest officers give tips in Thrift Stamps. This seems to be a good idea, and arouses interest more particularly from the desire to know how Forest officers ever accumulate funds sufficient for such liberality.

Thirty men are busily engaged in planting operations on the Shasta under the direction of Forest Examiners Show and Jotter.

District 6

Capt. Frederick W. Rase, a recent caller at the District Office while en route from Camp Fremont to Camp Lewis, states that the men at the camps are all very keen to get "over there," and that the feeling in camp is the best ever.

Logging Engineer D. F. Seerey has returned to District 4. Before leaving he gave a talk to the Timber Survey men all about timber reconnaissance and its correlation with timber appraisals.

A. G. Jackson, responsive to a request made by Lieutenant Weaver of the Signal Corps, recently addressed about 1,000 men at an open-air meeting at the Vancouver Cut-Up Plant. The address was illustrated by slides and a five-reel motion picture film.

The Mazamas will have their annual outing to the south of Wallowa Lake on the Wallowa Forest during the latter part of August.

The Trails Club of Oregon plans a two-weeks' outing during the latter part of July at Elk Meadows, in the Mount Hood region on the Oregon Forest. The party is limited to fifty members.

Probabilities are that the Boy Scouts of Portland will establish a summer camp on the Oregon Forest. Scout Executive James E. Brockway, accompanied by Messrs. Buck and Jackson, a short time ago visited several possible sites.

District 7

Favorable action was recently taken in Arkansas by the legislative committee on the constitutional convention to submit to the convention, which meets in July, the proposal that laws be passed to encourage forestry, provide for the acquisition of suitable lands for inclusion in forest reserves and to provide for general conservation and protection of the natural resources of the State. Arkansas is at present very much behind the times in the protection of natural resources and it will be interesting to note whether public opinion has been sufficiently awakened to carry through to a successful end legislation of this kind.

Proclamations were signed by the President on May 16 creating the White Mountain, Shenandoah, and Natural Bridge National Forests, thus adding full dignity to three more Purchase Areas.

The White Mountain Forest, located mainly in New Hampshire, but also including a small area in Maine, comprises 267,000 acres of Government land. In addition 124,000 acres have been approved for purchase, which area is likewise protected against fire, making about 391,000 acres under administration. Receipts to date for the current fiscal year amount to $12,500.

The Shenandoah Forest is situated in Virginia and West Virginia and embraces 100,000 acres, with an additional 65,000 acres approved for purchase, all of which is under protection against fire. Receipts to date for the current fiscal year are $8,000.

The Natural Bridge Forest in Virginia covers 73,000 acres with 29,000 more approved for purchase. It is expected that extensive use will be made of this Forest for recreational purposes in connection with the Natural Bridge, which is not within the area acquired but only about three or four miles distant.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

May 28, 1918.

"Passing the Buck"

It is such an easy matter to tell the user of the Forest, whether timber purchaser, grazing permittee or what not, that he must do certain things because the regulations require it, or because the Supervisor wants it done that way or because the inspector insists upon certain methods. This method of "passing the buck" or hiding behind the regulations or higher officers in the Service, accomplishes results, but it leaves the user under the impression that the officer on the ground is not in sympathy with the Service practice.

It is easier to tell a timber sale purchaser that he must take certain trees of doubtful merchantability because the regulations require it or because the inspector will "jack me up" about it if he doesn't. Isn't it better to tell the purchaser that he must cut those trees because in your judgment they are merchantable under the contract? Does not that practise show more backbone? Isn't it less likely to invite complaints? Isn't it more likely to engender respect both for the Forest Service and for the "Officer in Charge"?

If a man takes a stand and tells Mr. User exactly what he must do, not because of some regulation, but because that action is necessary in order to get the results for which the Forest Service is striving, the user has a chance to argue the point. Argument gives the Forest Officer a chance to explain the principles involved and the why of it. If any requirement of the Forest Service is unjust in any particular case the officer on the ground, whether Ranger or Supervisor, certainly ought to do his part to change the requirement, but if it stands, the enforcement ought to be "straight from the shoulder" without any apologies.

We are members of a big organization and there are many regulations with which many of us do not personally agree; and often the decisions made by our superior officers are not in accordance with our ideas. Let us fight it out inside the organization, but always present a solid front to the public. Every time we "pass the buck" we weaken our own position, decrease our usefulness to the Service, and lose, to a certain extent, the respect of the public. A user of the Forest should rarely if ever find it necessary to appeal to the District or Washington office, and nine times out of ten, when a complaint is made, somebody has been "passing the buck." It is the great American game but it is not one to be proud of. Let every man stand in the open and fight his battles on the merits of the case and not hide behind a regulation or an inspector.

JOHN F. PRESTON.

Timber and Taxes

The pathetic appeal in the following letter is not without interest in showing the typical sad experience of many who, under the influence of the excitement of getting rich quick through the acquisition and later sale of West Coast timberlands, staked their savings in the hope of big and quick returns. The Forest Service has received many letters of this kind during the past few years. The financial pressure is not confined to small owners and investors alone, but has also become a very serious financial problem for the companies contracting the large timber holdings of the West. Under present conditions there seems to be no relief in sight for such owners either large or small.

May 1, 1918.

To the Chief Forester,
Washington, D. C.

Dear Sir:

In the year 1905, I "took up" a timber claim in __________ County, State of ______________, near the ______________ National Forest Reserve. At the same time a friend "took up" a claim alongside of me. We paid the necessary fees and "proved up" on them, getting our patents in due time.

We then had a chance to buy four more adjoining claims from individuals at an average price of $1,500, or totaling $6,000.

Most of this timber is Douglas fir.

We were working in the composing rooms of two newspapers and thought we might be able to make a little money by holding this timber awhile, as at that time there was great excitement in the timber line.

We had it cruised by a local cruiser, at a total of 23,000,000 green and 9,700,000 feet of burn, a fire having gone through a short time before we filed on them.

In due time we tried to sell offering it at various prices from $1 down to 27 cents for the green and giving the scorched, which is perfectly good, as good measure.

We've had this timber now about 13 years and have been unable to do anything at all with it at any price.

In the meantime the county of __________ has been taxing us unmercifully, my share for three claims averaging about $300 a year for about 12 years. This year it is $316.

We have protested time after time but with no result, the tax averaging about $100 a claim.

The __________ Lumber Co. is operating about us and could use our timber, but they have been buying from the Reserve at a fair price, at from $1.50 to $1.80 per M, and have been able to buy all they need.

They say they will buy ours when they need it, but this won't be necessary for many years as they are pretty well supplied with timber from the Reserve and don't have to pay taxes or run risk of fire.

This timber has cost us about $13,000 cost and taxes, not figuring interest. We cannot afford to drop this timber as it represents hard saving of all those years.

We have been unable to do anything else but save for this tax.

It costs me about one week's wage every month, and my rent takes almost another week, as rents and all expenses have gone so high.

My wife has been and is now sick and this has cost me over $3,000 in saving I had and what I could do from my wages apart from the tax.

I owe money I had to borrow for last year's tax.

My wife needs medical attention which we have had to neglect as we cannot afford to let our taxes go in arrears as we are hoping and hoping something might happen to relieve us of that awful strain, the timber tax. I also have a piece of vacant real estate I am paying over $100 tax on which I cannot sell.

We are getting on in years and it is giving me a great deal of anxiety as I must have something. I have been unable to get anything -- even life insurance -- so I am in a serious shape.

What we would like to know is can you relieve us of this strain - can you help us to get rid of this timber, or can you advise us what to do?

We cannot afford to drop it, and yet cannot afford to hold it.

We have tried repeatedly to sell for much less than the value the county places on the claims, but with no success whatever.

There is absolutely nothing doing and we cannot afford to hold any longer.

So we would be grateful could you do something for us.

Hoping to hear from you, I am

Yours respectfully,

P. S. We are very patriotic and have tried to help in every way. We bought Liberty Bonds but had to turn them in on one bill and accounts at a discount, as we cannot afford to keep them.

(Editor's Note)
There is little probability of early purchase by the lumber company referred to, as their present operations are across a high divide from these claims.

A Chance of Ten Generations

A total eclipse of the sun will be staged on June 8. The path of total obscuration is limited to a diagonal swath about sixty miles wide running from the southern end of the State of Washington through parts of Oregon, Idaho, Wyoming, Colorado, Kansas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, and Florida.

Ninety seconds is the extent of the totality. It will require from two to two and one-half hours, however, for the shadow to move across the sun, the variation in time depending on the location of the observer.

At Southbend, Washington, the eclipse begins at 1:35 P. M., ending at 4:08 P. M., and at Orlando, Florida, it begins at 4:43 P. M., ending after sunset. Observers on both sides of the diagonal path within which the complete obscuration occurs will, of course, have a chance to see a partial eclipse, the extent varying with the distance from the path.

It is stated that the chance to see a total eclipse from the same point of observation comes but once in 360 years. It might be well for us all to take advantage of the present opportunity, for it is hard telling where we will be at the next chance. It is also suggested that the field men in the path of the total eclipse do not mistake the time of day and knock off from their day's work. The full period of darkness and gloom will be on the average but a little over one minute.

March 18, 1918.

The following letter was received by one of the knitters in the Washington Office:

Lieut. Lindsey presented me with a very fine pair of wool socks this morning. He said that part of the business was to write to the donor of these socks and tell her just how fine they were. Hence the epistle.

They came in very pat, as I've about worn out all my socks and the supply sergeant tells me my credit with them is n.g. so they will be worn, worn out, and appreciated. I have had some socks sent that were peculiar. One I use for a gun case, as it is all leg and no foot. Another serves as a dishrag, as no soldier in this outfit could thrust his foot into it. But yours fit to a T and the measure of my gratitude is exceeded only by the size of my feet and the socks. Thanks a lot.

Lieut. Lindsey's brood is all O. K. and will be a fine batch of soldiers before this war is over. We all feel the separation from the ladies, however, and a few minutes' conversation with a regular girl who could understand a little slang would go very well with any of us.

No doubt you know all about France, so will not waste your time with a description thereof. Will say its attractions are greatly exaggerated, however.

Letters are greatly in demand and should you see fit to answer this note will come back with a regular letter.

Sincerely,
(Signed) Bob Haworth.

1st. Sgt. R. B. Haworth,
Company E. 10th Engineers, Forestry,
American Expeditionary Force.

Arizona Stockmen Favor Federal Range Control

Recommendations that the Forest Service be entrusted with the supervision and control, of the range outside of the National Forests is made in a report by the Director of Agricultural Extension for the State of Nevada, on the basis of a State-wide survey of range livestock conditions just completed.

A series of questions on general range conditions was submitted to the stockmen. Many of the questions called for conclusions based upon a comparison between Forest Service control and no control at all.

About 75 per cent of the stockmen reported it as their conclusion that on range outside of the National Forests the natural range vegetation is disappearing at an alarming rate on account of uncontrolled over-grazing, that the present carrying capacity is less than formerly, and that unless effective and immediate control measures are adopted there would be a complete and permanent destruction of the open range.

The chief causes for this condition are laid to increase in the number of sheep grazed; uncontrolled grazing as against deferred grazing; increase in rodents resulting from decrease in coyotes, and in some sections the increase in dry-farm homesteads.

About 40,000,000 acres of open range lands are affected, carrying 450,000 cattle, 1,400,000 sheep, and 15,000 horses. As against this, says the report, the 6,000,000 acres of range within the Forests under controlled grazing, carry 80,000 cattle, 550,000 sheep, and 10,000 horses.

About 70 per cent of the stockmen voted in favor of the extension of Federal control to include the open range outside the Forests. Of the number registered as opposing, a considerable number did not feel inclined to vote for such extension until more definite information was available as to the nature of such control.

Knitters Have Their Troubles

Major Greeley's letter published in last week's Bulletin calls for some explanation. It implied that knitted articles if sent addressed to headquarters of the two Forest Regiments would go through. The regulations of the War Department now make it impossible to send articles in this way. We are waiting to find out whether any way at all can be devised by which we shall be able to send to men in the Forest Regiments socks and other articles knitted for them.

In response to a request from the Chaplain of thr 43rd Battalion of Road Engineers, which is auxiliary to the 20th Engineers, the Districts were asked to hurry in completed socks. The Chaplain wanted at least 500 pairs. He was furnished 184 pairs and about 400 pairs more were gathered together, mainly through the prompt response of the Districts and Madison to the call.

Unfortunately the Chaplain fell ill, the battalion was suddenly sent away, and the men left without our being able to get the socks to them. This was simply a case of the miscarriage of arrangements which had been carefully made and were apparently all right, without any one being at fault, but none the less it was a great disappointment and vexation. If, however, any way can be found to get the socks to the men on the other side, it may turn out after all that all has been for the best.

From a Coeur D'Alene Boy Who Was On The Tuscania

The following letter is from Joe Nelson, who enlisted in the 20th Engineers through the Coeur d'Alene office, and was at one time a scaler and a guard on that Forest.

Dear Brother:

I came here from Ireland a few days ago. I am glad to be back with my company again. I have been all over the northern part of Ireland and was treated like a prince all the time. I wouldn't have missed it for any man's money. I know you have heard all about the "Tuscania" being sunk. My company

lost heavier than any but all the boys who left Coeur d'Alene with me are all right. I had a severe cold on the lungs and hadn't eaten anything for several days when we were torpedoed, so my chances of coming out with a whole skin didn't look very big as I was so weak I could just walk and that's all. I was among 250 men on a lower deck and if they hadn't been a good sensible bunch some of us would never have got out. There was no panic or jamming in my company at all. We all went to the places assigned to us to go over in the boats; my boat was the second boat to go over. Andy Anderson was along side of me. When I got to my place all the rest were there and had left my place open for me. We all fired up a "pill" and waited for our boat to come over, but it never came, for the tackle was all jammed and tangled up. Andy and some more of the boys went up and tried to rig the blocks up, but were unable to do anything with them as the rope on the bow tackle was cut and there wasn't any more rope small enough to go through the blocks. That settled the question of our going away in boats, unless we could snub them over the side with the big ropes which were coiled up on deck. I couldn't do anything towards shoving the boat over but helped rig up the rope at the stern.

The bunch pushed the boat up till it began to tip up edgeways, we held it there while some of the boys looked for hand-spikes or something to pinch the bottom of the boat off the edge of the deck so she wouldn't go with a jerk, but they didn't find anything.

We all knew if we slacked up on the ropes far enough to let her slip she would go with a jerk but there was nothing to do but take a chance, so all the men that could get a foot or a hand on the boat began to shove while we eased away on the ropes and over she went, the stern line rendered enough to take up the sudden jerk but the bow line was too solid or else the eye bolt was no good; anyway the eye bolt pulled out and let the boat drop and she smashed to pieces.

The bunch rested a few minutes and tried to shove the next boat over, but the ship had listed so much they could not "musher". Andy, "Arkansas" and I went around the deck looking for something that would float, but could find nothing. We sat down and smoked up all the "pills" we had and by that time a destroyer pulled in and began to load up. We went up that way but the deck was jammed full and it looked like there were twice as many men there as the destroyer could take and we were behind them so it looked like we were out of luck altogether. Otto Shultz saw us and called for us to come on but I thot it was no use. Any went on and "Arkansas" and I turned back. He went around to the other side but I sat there and thot over the things where the wind couldn't hit me.

I sat there and thot over the things I had done or tried to do and couldn't recall a single time where chance was an important factor that it didn't turn the wrong way. After I had sat there a while I began to feel just like a man does when he plays in hard luck, and finally makes four aces and gets them beat. Being walloped with no chance to hit back makes a man want to tear H--- out of things. I got up and went up to where the destroyer was and looked down on her. Everybody was hollering "come on". I swung a rope out and a sailor grabbed it and said, "come on, me lad," and I didn't lose anybtime about it, and wasn't a minute too soon for she was beginning to move right then. We were about two hours running to port and were fed and in bed by three o'clock.

What are you doing and how is everybody over there? I haven't had any news from home since I left Spokane. I expect to run into a pile of mail when I get to France as every one I wrote to would address it that way. This is sure a pretty country around here.

We have a football team that beats everything and are organized for baseball, too.

We are going to have a brass band for our company; we (Co. D) gave a dance last night and it was a bear cat.

lost heavier than any but all the boys who left Coeur d'Alene with me are all right. I had a severe cold on the lungs and hadn't eaten anything for several days when we were torpedoed, so my chances of coming out with a whole skin didn't look very big as I was so weak I could just walk and that's all. I was among 250 men on a lower deck and if they hadn't been a good sensible bunch some of us would never have got out. There was no panic or jamming in my company at all. We all went to the places assigned to us to go over in the boats; my boat was the second boat to go over. Andy Anderson was along side of me. When I got to my place all the rest were there and had left my place open for me. We all fired up a "pill" and waited for our boat to come over, but it never came, for the tackle was all jammed and tangled up. Andy and some more of the boys went up and tried to rig the blocks up, but were unable to do anything with them as the rope on the bow tackle was cut and there wasn't any more rope small enough to go through the blocks. That settled the question of our going away in boats, unless we could snub them over the side with the big ropes which were coiled up on deck. I couldn't do anything towards shoving the boat over but helped rig up the rope at the stern.

The bunch pushed the boat up till it began to tip up edgeways, we held it there while some of the boys looked for hand-spikes or something to pinch the bottom of the boat off the edge of the deck so she wouldn't go with a jerk, but they didn't find anything.

We all knew if we slacked up on the ropes far enough to let her slip she would go with a jerk but there was nothing to do but take a chance, so all the men that could get a foot or a hand on the boat began to shove while we eased away on the ropes and over she went, the stern line rendered enough to take up the sudden jerk but the bow line was too solid or else the eye bolt was no good; anyway the eye bolt pulled out and let the boat drop and she smashed to pieces.

The bunch rested a few minutes and tried to shove the next boat over, but the ship had listed so much they could not "musher". Andy, "Arkansas" and I went around the deck looking for something that would float, but could find nothing. We sat down and smoked up all the "pills" we had and by that time a destroyer pulled in and began to load up. We went up that way but the deck was jammed full and it looked like there were twice as many men there as the destroyer could take and we were behind them so it looked like we were out of luck altogether. Otto Shultz saw us and called for us to come on but I thot it was no use. Any went on and "Arkansas" and I turned back. He went around to the other side but I sat there and thot over the things where the wind couldn't hit me.

I sat there and thot over the things I had done or tried to do and couldn't recall a single time where chance was an important factor that it didn't turn the wrong way. After I had sat there a while I began to feel just like a man does when he plays in hard luck, and finally makes four aces and gets them beat. Being walloped with no chance to hit back makes a man want to tear H--- out of things. I got up and went up to where the destroyer was and looked down on her. Everybody was hollering "come on". I swung a rope out and a sailor grabbed it and said, "come on, me lad," and I didn't lose anytime about it, and wasn't a minute too soon for she was beginning to move right then. We were about two hours running to port and were fed and in bed by three o'clock.

What are you doing and how is everybody over there? I haven't had any news from home since I left Spokane. I expect to run into a pile of mail when I get to France as every one I wrote to would address it that way. This is sure a pretty country around here.

We have a football team that beats everything and are organized for baseball, too.

We are going to have a brass band for our company; we (Co. D) gave a dance last night and it was a bear cat.

Forest Inspector Nelson Reports a Busy South

Forest Inspector Nelson just back in Washington from a three-weeks' trip of inspection of the grazing conditions on the National Forests and Purchase Areas of the Southeastern States reports that he found every one keen to do his bit toward the winning of the war.

Every effort is being put forward towards maximum production. The farmers are particularly busy and every available piece of land at all suitable for the raising of crops is under cultivation. There is no slacker land anywhere. War gardens for the raising of vegetables for home use are also to be seen very generally.

There seems also to be a very general desire on all sides to become familiar with the regulations of the Food Administration, in order to make possible a full compliance with the demands of the Government for the conservation of foodstuffs as conditions change from time to time.

Livestock conditions are also good, and in some parts of the Forests there is a material increase in numbers. Forage conditions are good owing to the favorable spring weather and the start of the vegetation is so good that a maximum forage growth is assured for this season.

Lieutenant Stewart Busy on Fire Patrol

The following letter, received by the Editor, indicates that the experience gained fighting forest fires and guarding against them was probably not without value to Lieutenant Stewart. We don't wish him any bad luck but hope some day to have a report as to the starting of a fire, the prompt response, and, better still, the efficient working of the machinery whereby the fire was nipped in its incipiency and no damage done, although possibilities for a bad conflagration were many:

Camp Kearny, California, May 13, 1918.

To The Editor,
Dear Sir:-

I have been receiving the Bulletin regularly for the past few months, and want to thank you for putting me on the mailing list.

Although I have been on furlough from the Forest Service for more than a year now, a day never passes but what I have some pleasant recollections of my nine and a half years' work with the best bunch of men I ever knew.

The Bulletin has given me lots of news of old friends: Kelleter, Herbert Ward, Jim Frankland, and others.

I am still on this side of the water, but live in hopes.

My work here will interest all Forest Service men. I am in command of Fire Truck & Hose Co. No. 337, and have charge of all fire prevention and suppression work for this cantonment. It seemed rather natural last summer and fall to be fighting brush fires down here within a short distance of where I fought them when I was a ranger on the Cleveland Forest. The proposition of protection of warehouses, hospitals, theatres, barracks, etc., is somewhat different from the protection of brush and timber, but the main underlying principle governs in both cases; i.e., prevention is 95 per cent of the game, so I have had to make a thorough study of prevention from all angles. I have over 1800 buildings to look after, and have had very few fires, which I think is a pretty good record. The enlisted personnel of my company is composed of highly trained firemen of metropolitan experience, and they are certainly a willing, hard-working bunch.

If any members of the Washington Office should make the Cleveland this season, I'll be glad to have them call at the Camp.

Sincerely,
(Signed) JEFFERSON M. STEWART.
First Lieutenant Q.M.Corps, N.A.
Comdg. Fire Truck & Hose Co. 337
Camp Kearny, San Diego, Calif.

War Brevities

Capt. John D. Guthrie has been assigned to Regimental Headquarters for special duty. Advice of this change received did not indicate the length or nature of the detail.

Clifford Woertendyke, formerly clerk in the Washington Office and now Assistant Auditor in the War Department, has safely reached Paris. He reports a pleasant sea voyage which, however, seemed rather long to him as he failed to acquire his sea legs.

The annual import of tanning materials aggregates about 95,000 tons, and in an effort to make this tonnage available for the transportation of essential war materials, the Forest Service, at the request of the Hide and Leather Control Board of the War Industries Board and the Tanners' Council of America, has undertaken a study of the tanning situation in the country, in the effort to stimulate production and thus lessen the imports.

The field work done in the Southern Appalachians by G. E. Marshall and Harold G. Wood, of the Forest Service, indicates that there is at present a shortage in extract materials due to the small amount cut during the past winter. Most of the plants rely on the farmers for their main supplies, but last winter there was greater profit in cutting cordwood and as a result less extract wood was cut.

The general shortage of labor makes it practically impossible for the operator to make up the deficiency in this way and there seems to be no relief other than that of waiting for the farmers to turn to cutting of wood on completion of their spring work.

Another difficulty experienced by the operators is the inadequacy of the transportation facilities for the extract. Many firms that used barrels to meet the shortage of tank cars found the experiment very unsatisfactory, owing to the difficulty of getting barrels and the losses incurred in shipment through leakages.

Washington Notes

A. E. V. Richardson, Professor of Agriculture in Australia, called at the Atlantic Building last week. Professor Richardson is studying the operations of the Department of Agriculture of this country, including the work of the Forest Service. He will visit Madison next month.

Inspector of Grazing Jardine has gone to Bogalusa, Louisiana, where, with representatives from the Animal Husbandry Division of the Bureau of Plant Industry, he will make an investigation as to the best methods of handling the western sheep recently put on the logged-over lands in Louisiana. Mr. Jardine was called on to determine the practicability of handling the sheep in large bands and under western range conditions.

Forest Inspector Bronson has returned to Washington from a two-months' trip to the western District headquarters in connection with the consideration of the annual allotment estimates.

Public Natatorium on National Forest

A natatorium, to be free and open to the public, is being erected near Dillon, Montana, by several public-spirited citizens of the town, who have subscribed $12,000 for that purpose. The natatorium is on lands within the Beaverhead National Forest and uses the water from the Elkhorn Hot Springs, locally famous for their medicinal properties.

Recently a representative from Dillon was in Washington and, through Senator Myers, asked the War Department to consider the erection at Elkhorn Hot Springs of a sanatorium for returning invalid soldiers. The country surrounding the springs spreads out easily on all sides, is not too heavily timbered, and offers unlimited opportunities for the erection of buildings. The citizens have offered the full and unrestricted use of the natatorium to the limit of its capacity in connection with the proposed sanatorium.

Red Cross Campaign in Washington

The Red Cross campaign to raise additional funds was opened in Washington on May 18 by a parade of the women workers. Twenty thousand women, dressed in the regulation uniform of the Red Cross, participated.

The Forest Service was well represented, not only in numbers, but also in the showing made as marchers. The seventy participants had put in several afternoons in drilling for the occasion, and the result indicated that they had very successfully acquired the ability to keep step, march in straight line, and above all respond to the stentorian commands of their captains. We have all reason to be proud of them and trust that there will not be a parade for men, for the inevitable comparison would, without doubt, be to the disadvantage of the men.

District 1

Miss Georgia Hollier, of the Gallatin Forest force, has enlisted in the Navy as yeoman of the first class. She is the ranking applicant to be enrolled from Bozeman since the recruiting station was established there a year ago, and will be assigned to duty in the thirteenth naval district.

Brush disposal problems are being given consideration on several Forests in the Inland Empire region. It is planned to make a comparison of the silvicultural results obtained in piling brush with later burning as against progressive burning simultaneously with the cutting operations. The experiments will cover different sites and types under varying weather conditions to determine practicability of the two methods.

The main objection at present against progressive burning is the initial cost and the difficulty in getting the fires started. On the Selway, on the other hand, on account of frequent rains, it has been found practicable to pile and burn at once, rather than having the brush piled some considerable time before burning. It is hoped to overcome the objection to the difficulty of starting fires in progressive burning by the use of the Hauck blow torch, which is in common use to thaw out frozen pipes and railroad switches.

District 2

Telephone Engineer Kylie has completed a manual on "Open Tank Treating Practice", which will be mimeographed and issued for the use of Forest officers in this District. The purpose of the manual, which is to be supplemented by further data based on work carried on in the District, is to present a brief practical reference based on experiments already performed in the District and from data selected from the various publications issued by the Madison Laboratory and others.

During the present week Messrs. McLaren, in charge of fire protection, and Barker, recently assigned to the District office from the Holy Cross, will visit the Devil's Head fire lookout station on the Pike Forest to try out the Osborne fire finder and relief alidade. Later, Mr. Barker will visit each of the lookouts in the District and procure revised relief maps through the use of this instrument.

The hitherto available open range in the vicinity of Newcastle, Wyoming, has been designated for opening to entry under the 640-acre act, and the sheepmen find themselves without range. As a result, they have renewed their efforts for the removal of the inhibition against sheep grazing in the Black Hills. This is interesting also in showing another factor that will have a great effect on the demand for grazing on the Forests.

A sale of 1,770,000 linear feet of mine prop material at $3.50 per thousand has been made to the Standard Timber Company, of Evanston, Wyoming, on the Wyocolo Unit of the Colorado and Wyoming Forests. Operations are now under way on the same area on a log and tie sale made to the Foxpark Timber Company, of Laramie. The prop material will be taken out only after the ties and logs have been removed.

District 3

Cooperative prairie-dog extermination is under way on the Tusayan and Prescott Forests, participated in by the Forest Service, Biological Survey, and the stockmen of the region. At a recent meeting held at Prescott, D. E. Gilchrist, of the Biological Survey, stated that his office was prepared to assist owners of private land in prairie-dog poisoning demonstrations, and prepared to furnish experienced men for this work. Poison, grain, and other materials are obtainable from the Biological Survey at cost. An effort will be made to have the Legislature of Arizona at its special session, which convenes next month, make an appropriation for rodent and predatory-animal extermination for cooperative work with the Federal Government.

Interforest exchanges of excess material are desirable but seldom made, as the Forest giving up the material gained nothing in return. This can be overcome by the adoption of a basis of exchange recently had between the Carson and Santa Fe Forests. The former turned over some second-hand telephone wire and in return received an increase in improvement allotment on the basis of the appraised value of the wire, at the expense of a decrease in allotment to the Santa Fe.

District 5

The lookout at the Cuyamaca Lookout Station on the Cleveland Forest seems to be a thirsty soul. Supervisor Tillotson is planning the erection of a 1,200-gallon tank under the floor of the building to be filled by the rainwater from the eaves under an elaborate system of guttering.

An active campaign on the question of forest fires and their prevention is being carried on throughout the State under the auspices of the combined efforts of the District Forester, State Forester, the Farm Advisors, and Professor Metcalf of the University of California, all of whom are members of the Forest Industries Committee of California. Letters calling attention to the necessity for fire protection for grain, grass, and fruits are being sent by the District Forester to all county officials. Four definite lines of action are suggested: (1) the passage of definite county ordinances relative to fire in grass, grain, warehouses, lumberyards, etc.; (2) provision by the Board of Supervisors for fire-fighting equipment; (3) the awakening of general public sentiment to the danger of carelessness with fire and the necessity of care with fire; (4) provision for the employment of paid patrolmen, to be appointed as deputy State fire wardens and to work under the direction of a qualified county officer.

The motion picture film made on the California Forest shows a camp fire spreading to surrounding brush and then developing into a forest fire, in addition to scenes showing receipt of the message over the telephone, the rangers fully equipped starting out, fire-fighting scenes, and an incendiary in the act of setting a fire.

The Plumas Cooperative Stockmen's Association was organized at Oroville, electing as president Thomas A. Gianella, a sheepman of Honcut.

Assistant District Forester Reed and Forest Inspector C. G. Smith have returned to Washington from a six-weeks' trip to the southeastern Forests on which attention was given to the silvicultural and timber sales problems.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

June 3, 1918.

Timber Sales on the Southern Appalachian Forests

The revenue from timber sales on the purchased Forests in the Southern Appalachians shows a gratifying and steady increase, in spite of the scarcity of labor in the woods and the high cost of production. Local operators are becoming better acquainted with Forest Service methods and the purchase of Government stumpage is steadily increasing. Timber sales in the Southern Appalachian Forests are of particular interest, as compared with sales elsewhere, on account of the variety of species, both hardwood and softwood, found growing together and of the many different products taken out under one sale contract. It is no uncommon thing for a single sale, involving two or three million feet of timber, to include some twelve or fifteen species for lumber, with individual species utilized for such by-products as tannin extract and wood bark, telephone poles, railroad ties, pulpwood, firewood, and dyeing material.

Each species and product, as a rule, has a different sale value and so a different stumpage value. This makes the stumpage appraisal, even in a comparatively small sale, a complicated affair. The value on the stump, however, is ample compensation for the difficulty encountered in working up a sale of this kind. Yellow poplar and red oak bring from $6 to $9 per thousand, and the other oaks and chestnut, from $3 to $5. Tanbark this spring, owing to war values, has been bringing from $4 to $7 a ton on the stump. There is one chance on the Cherokee Forest in Tennessee on which the total estimated stand, converting all products into thousand board feet, is approximately 7 million feet, yet the total estimated value on the stump exceeds $36,000.

The widely varying forest types, due to differences in altitude, latitude, exposure, topography, and soil conditions and the variations in the mixture of species, present an infinite variety of silvicultural problems. Silviculture in the Southern Appalachians, however, in the last analysis, boils itself down to a very simple proposition. The extreme vigor of these forests, the readiness with which they reproduce themselves from sprout and from seed, and the rapid rate of growth, enable them to recover quickly from the most destructive methods of cutting. Repeated fires and heavy overgrazing are their only real enemies, and with these eliminated heavy cutting does the forest little harm.

A good many interesting logging engineering problems are presented by the timber sales in the Southern Appalachians. The Government has acquired many small tracts of practically virgin timber within easy hauling distance from the railroad, most of which have been preserved from previous logging by the extreme roughness of the topography and difficulty of transportation. Flumes and tram roads are in some instances found possible on account of the demand for lumber and the present high prices.

F. W. REED.

At the Front--In New Mexico

Forest Ranger Juan W. Carrejo, of the Datil Forest, has been severely wounded while in the performance of his duties as Forest officer. On May 11, in company with a cattle inspector of the New Mexico Cattle Sanitary Board and a member of the State Mounted Police, he went to the Cooper Ranch to inspect the brand on a beef the Coopers were to kill for a neighbor.

The reputation of the Coopers is not of the best, and the general feeling of their neighbors is that they do not at all times confine themselves to the killing of beef of their own brand.

The officers stationed themselves on a hill near Cooper's place early in the morning and observed the killing of a beef in the corral. The investigating party, now numbering five by the addition of two neighbors, approached the corral as the Coopers were engaged in skinning the cow.

Within one hundred feet of the corral they met C. C. Cooper, passed the time of day, and proceeded. Bruce and Harmon Cooper were in the corral and greeted the five men as they entered. As the party rode toward the slaughtered animal, Bruce Cooper raised his rifle and warned the men to stay out, on the threat of shooting each and every one if they failed to obey. About this time Ranger Carrejo slid from his horse and got hold of his Winchester. Cooper opened fire on him and he returned three shots, the full contents of his rifle. Cooper emptied his rifle and then drew his six-shooter, advancing as he fired. The last shot struck Ranger Carrejo in the left side. Thereupon Cooper turned and made an effort to escape by jumping the corral, but was struck on the head by the butt of the rifle wielded by Carrejo, dropping him on the other side of the fence.

While Carrejo was thus occupied, the others in the corral were likewise busy, and many shots were fired. Bruce and C. C. Cooper were killed and Harmon Cooper and Ranger Carrejo wounded. During the fracas several efforts to bring assistance to the Coopers were made by women members of the household, but the rifles were wrested from them before they had a chance to use them.

The defendants were bound over to the next Grand Jury and are now out on joint bond of $15,000.

And the cow was the property of Nellie Carrejo, the mother of Ranger Carrejo! *

From The Bulletin, District 2, May, 1918.

A Canadian Jay

Ah! discovered at last! After two years of search, during which the Black Hills Forest Officers have acquired curvature of the neck, a camp robber's nest has been discovered and captured. The laurel goes to Ranger Haines Pond and also a check for $25.00, which is Mr. Bradbury's way of expressing his appreciation of Pond's untiring perseverance. And it took some perseverance. Mrs. Camp Robber is a chatterbox and a meddlesome gossip in the affairs of others, but she is very shy and reticent when her own domestic affairs are under investigation.

Pond literally roosted with the chickens during his search and spent one perfectly good Sunday afternoon spying on the camp robbers from a concealed position in the hen house. He enlisted the help of all the neighbors and ran down numerous tips and clues furnished by them. Finally he discovered the prize snugly tucked away in a small jack pine about 4½ feet from the ground. This was on April 21. The nest contained two eggs and a young bird just hatched. Several photographs were secured of Mrs. Camp Robber on the nest, and then she, with nest and portion of the jack pine, were sent to Denver; and we trust that visitors to the museum there will be made to realize when they gaze upon Mrs. Camp Robber and her nest, duly mounted for inspection, that they are gazing upon one of the most elusive and mysterious objects to be found in the National Forests.

Incidentally we have been informed that our camp robber is not exactly the same as the Rocky Mountain camp robber, since ours is a Canadian Jay, and the camp robber of the Rocky Mountains is a Rocky Mountain Jay. Therefore, keep right on kinking your necks, you Rocky Mountain Rangers. We hope to be able to get the kinks out of ours now.

G. A. DUTHIE.

Airplane Spruce in the Lake States

A general survey recently made as to the availability in the Lake States of eastern spruce for airplane construction developed the fact that the spruce in that region can not be counted on to supply more than a very limited amount of stock. All of the large mills in northern Minnesota were visited, and while they are cutting about 80 million board feet this season it is doubtful if one-half of one per cent of this cut will be acceptable for airplane construction.

White spruce is generally utilized as saw timber, while the black is used largely for pulpwood. The white spruce stands are largely found north and east of Red Lake on the upland clay soils, while the black is found in dense

stands in the swamps, although it also occurs on the sandy soils in mixture with other species. It was found that most of the white spruce in this region is not over 130 years old and very limby. The black spruce is too small and limby to be even considered as a source of airplane material.

The managers of the mills cutting spruce lumber agreed to grade out and pile separately all clear stock produced, to make it available in case it was needed. It is the writer's opinion, however, that the amount produced will be very small, and the general texture poor, due to the rapid growth. Wisconsin and Michigan spruce is of even poorer grade than that in Minnesota and can not be counted on for airplane construction.

E. D. FLETCHER.

Effective Cooperation in Walnut Sales

A recent sale of a lot of black walnut in West Virginia in connection with a forestry demonstration carried on by Forestry Extension Specialist Mattoon brought the owner $70 per thousand board feet on the stump. This is an increase of at least $20 per thousand above what the owner could have expected to receive from local buyers, and means in the aggregate about $500. Mr. Mattoon made a cruise of the timber, marked the black walnut trees for sale, and then informed various manufacturers as to the amount available. Three manufacturers interested themselves in this particular lot.

Puzzles for the Soldiers

A timely suggestion is made in the May Bulletin from District 2 by Ranger J. W. Dilley of the Cochetopa, who writes:

"The school children throughout the United States have been requested to clip puzzles from every available source to be sent to the soldiers in the trenches. Could not the children's time be more profitably spent if mimeographed copies of 'O, Finance, Per Diem' letter of January 12, 1918, be substituted."

For the Foresters at the Front

$66,700 was added to the Welfare Fund for the Tenth and Twentieth Engineer Regiments at a recent meeting of the National Lumber Manufacturers' Association in Chicago, by contributions of the individual members in attendance.

Forester Congratulates Washington Office and Madison Laboratory on Third Liberty Loan Record

The Forester has written the following letters to the members of the Washington Office and Madison Laboratory on the fine record made in the Third Liberty Loan Drive:

To Members of the Washington Office:

The response of the Forest Service to the appeal made by the Third Liberty Loan for the support of all loyal American citizens is a cause for just pride and I wish to extend my congratulations to the Washington Office for the spirit of patriotism and self-sacrifice which the results obtained attest.

To curtail expenditures in these days is no easy task; but it is an obligation of patriotism. It is also a privilege. It allows us to feel that we too are rendering a service, along with those who are giving their all. Unless we all stand together in determined and invincible will to win, and to meet the cost of winning, the Nation can not triumph.

That the percentage of women in the Washington Office of the Forest Service who subscribed to the Third Liberty Loan exceeded the percentage of the men is a fine proof of the spirit which pervades the women; but the goal which we should

strive for is the goal of 100 per cent. Let us begin now to prepare in a spirit of still greater devotion and sterner sacrifice for the calls which the future will make upon us.

H. S. GRAVES,
Forester.

"Director,
Forest Products Laboratory,
Madison, Wisconsin.

My dear Winslow:

I have learned with very great gratificiation of the remarkably good showing made by the Laboratory in its subscriptions to the Third Liberty Loan. Your total of $25,150 surpassed that of the Washington Office by about $1,500, although you have fewer people to draw upon. The Laboratory per capita subscription of $109.35, with an average monthly salary of only $92, affords another evidence of the patriotic and devoted spirit in which your people responded to the call. I note also that your per capita subscriptions to the First and Second Liberty Loans were still higher, so that apparently the Laboratory force has within a year taken Liberty Bonds which are the equivalent of almost four months' salary. I do not know what has been done by the Forest Service elsewhere than in Washington and at the Laboratory, but I shall be surprised if you have not set the high water mark for us all. You may well be congratulated on such a fine showing.

Very sincerely yours,
HENRY S. GRAVES,
Forester."

From The Bulletin, District 2, May, 1918.

HORACE B. QUIVEY

1892-1918

The Service Flag which we so proudly raised but a few months ago for our boys who have gone "over there," today bears a star of gold upon its field of white, set amidst thirty-four stars of blue. Horace B. Quivey, Twentieth Engineers (Forest) of the American Expeditionary Force, answered the last Great Summons "somewhere in France" on May 8, 1918.

Mr. Quivey entered the Forest Service as a ranger on the Hayden National Forest in Wyoming, on June 10, 1914, continuing in this position until he joined the Twentieth Engineers on January 5, 1918. He was a high school graduate from the State of New York and had received cadet military training at the University of Wyoming. Before coming West he worked one year for the New York State Highway Department, and before entering the Forest Service spent one season with the U. S. Reclamation Service and two and one-half years with the Swan Land & Cattle Company of Wyoming. As a forest officer Quivey was among the most competent and promising young men of the District--of the kind we always need, and and can never well afford to lose.

Prior to leaving for military duty in France Mr. Quivey was married to Miss Peryam, of Encampment, Wyoming, sister of Ranger John C. Peryam of the Hayden.

Madison Laboratory Notes

The following resolution was adopted at the recent meeting of the National Lumber Manufacturers' Association held in Chicago:

"The research and scientific work being done by the Forest Products Laboratory at Madison, Wis., under the direction of the U. S. Forest Service of the Department of Agriculture, has been of great benefit to the public in the

development of useful products from the timber resources of the country, as well as in the conservation of raw materials previously wasted. And, because of the splendid organization of the Laboratory and its extensive equipment, possibilities for this work for further utilization of forest materials are so great that we, delegates to the National Lumber Manufacturers' Association, representing the timber owners and lumber manufacturers of the United States, hereby recommend to Congress its favorable consideration of this constructive work to the end that it may not be curtailed at this time when the conservation of every material resource is so necessary. We, therefore, urgently recommend that the appropriation for the scientific work may be adequate to continue it to its present extent."

Washington Notes

E. D. Fletcher, W. N. Sparhawk, and E. N. Munns have taken to the woods and are now in the Southern Appalachians making an investigation of the supply and production of yellow poplar.

E. H. Frothingham has gone to the Lake States to study the general situation of the hardwoods of that region.

W. H. Weber, Frederick Dunlap, and Russell Watson are recent appointees to the Office of Forest Investigations to assist in the war work and will participate in the various timber-supply and production studies.

On May 31 Senator King from Utah introduced a bill to repeal the Act of Congress approved February 1, 1905, and to transfer National Forests from the Department of Agriculture to the Department of the Interior, which was referred to the Committee on Public Lands.

Mr. Kohzo Karasawa, now in this country in the interests of the Nippon Kwangyo Ginko, called at the office during the past week. He is particularly interested in the financing of logging and lumber companies and in this connection is acquainting himself with the timber sale business of the Forest Service.

The Director General of Elevators in the Atlantic Building has established an hourly service, with stops at every floor and sometimes between floors. The entire battery of two cars is employed in carrying out this schedule, which is an improvement over the old one of a trip every clear morning and afternoon.

District 2.

A stockmen's institute was held at Walden, Colorado, on May 23 and 24, engineered by Supervisor Jeffers of the Arapaho. The meetings were well attended, which is especially gratifying on account of the isolation of the North Park section and the difficulty of getting stockmen together. Various addresses were made by representatives of the Colorado Agricultural Experiment Station and Mr. Hatton gave an illustrated talk on grazing. Supervisor Wheeler made several addresses in connection with the Red Cross drive. Jackson County subscribed $6,000, which was particularly gratifying as the quota had been set at $1,000.

Carelessness of a fisherman in handling his camp fire on the Michigan Forest caused the destruction of several hundred acres of Norway and white pine plantations two to five years old. The fire, driven by a high wind, jumped three fire lines from 100 to 150 feet wide. The fire hazard is very high, owing to the continued dry weather,and although there have been numerous fires earlier that threatened the various plantations, the Forest officers had been able to keep them from the plantations.

Five fire trespasses have occurred this spring. These cases will be pushed with vigor in the hope of putting an end to fires caused through carelessness.

Becky Hoover, during her sojourn at Cody, earned $137.30 for the local Red Cross chapter and also added to her entourage, as Royal Consort, Herbert Hoover, a Rhode Island Red rooster.

Thomas V. Keefe, Deputy Supervisor of the Sopris Forest, has left the Service for attendance at the Fourth Officers' Camp at Camp Custer, Battle Creek, Michigan.

Forest Assistant W. C. Hassel has been transferred from the Superior to the Sopris Forest.

District 3

It cost Jack Hulse $207.50, covering fine and costs of trial, for having killed two antelope. The evidence was secured by Ranger Benton S. Rogers of the Datil.

Rangers Mickleson and Jones of the Coconino Forest have resigned and proceeded to the training camp, preparatory for service abroad.

Additional concrete fireplaces will be constructed on the Grand Canyon public camp grounds. This area is very extensively used, yet it has been possible to maintain it in very orderly condition through the numerous refuse pits and garbage cans that have been constructed.

District 4

First Lieutenant R. E. Davis of the Engineers' Office of the Western Department has been detailed to the District Office to supervise the preparation in final form of the remaining military reconnaissance reports prepared by members of the Forest Service and those secured through the cooperation of the State of Idaho. Private Sassenrath, who has been engaged in writing reports for the past couple of months, will be transferred to Carson City, Nevada, for similar duty.

A serious outbreak of sheep scabies has occurred in Lincoln County, Wyoming. The situation is now being investigated by representatives of the Bureau of Animal Industry, and it seems probable that an extensive area of outside range will be quarantined. This is the third recent outbreak of scabies in territory in this District, which has been free from the disease for a number of years.

The War Relief Association now has on hand $181.72, with no outstanding accounts. The Committee has voted to contribute $250 to the Red Cross during its present drive, $100 of which has already been paid, and the remainder will be paid in the near future.

Two of the three nurseries of this District have been closed out, the Beaver Creek on the Wasatch and the Pocatello on the Cache. The remaining one, the the Cottonwood Nursery on the Wasatch, will in the future supply all the trees needed for planting in the District.

Grazing Examiner Anderson will not go to District 1 but remain here, owing to the resignations for military service of Martineau and Palmer.

District 5

Twenty-five of California's counties have already organized, in cooperation with the Food Administration, by forming central county organizations. Each will send at least three delegates to attend a central convention at Davis on June 27 and 28, to form a State-wide cattlemen's association. The county associations have greatly stimulated the formation of Forest associations, seven new ones having been formed in the past few weeks. At the Davis convention, where all recognized Forest associations will be represented, addresses will be delivered by Mr. Ralph P. Merritt, Food Administrator for California, Thos. B. Hunt, Dean of Agriculture, University of California, Dwight B. Heard, ex-President National Livestock Association, and Professors Beckett, Madson and Shattuck of the University of California.

The State-wide fire campaign has so far been a strenuous one. Mr. Rachford, now in the office for a short breathing spell, will soon conclude his series of one-night stands in connection with the organization of the cattlemen of the State. Fire prevention and fire protection have been given a prominent place on the programs of these meetings. State Forester Homans is presenting the matter to the county boards of supervisors through the interior portions of the State with the assistance of the other members of the Forest Industries Committee, and is working through various other State organizations. To date, and since the campaign started, six counties have passed special fire ordinances, and twelve others have organized and sworn in rural volunteer fire-fighting companies. Tools, automobile trailers, and other equipment are being secured through county appropriations, and the whole movement is rapidly spreading.

Mr. Barrett has entirely recovered from his operation and is again back in harness. Needless to say, we are glad to see his smiling countenance.

The Law Enforcement program is also coming right along. The honor of obtaining the first conviction of the season goes to District Ranger Boulden on the Cleveland. Ranger Marx of the Angeles is reported to have used the experience gained in the San Francisco conference to good advantage, while Mr. Miller, a member of the Squad from the San Francisco office, appeared very opportunely on the Trinity and did a mighty good job in connection with a 200-acre fire. No arrest was made in this case, but the publicity given the matter by Supervisor Huestis will have excellent results. Supervisor Coffman and Special Inspector Brereton have done some fine work on the California, and very definite results may be expected in the near future. Details can not be given at this time. We hope Inspectors Robinson and Coleman will be able to come through with definite cases soon, especially since Supervisor Sloane of the Shasta has just wired of a bad fire situation in the McCloud country.

Five copies of the fire prevention film entitled "Increasing Food Production and Protecting Food from Fire," conceived and managed by Professor Metcalf of the University of California, taken by the Tam Film Company of San Francisco, and presented under the auspices of the Forest Industries Committee of California, will be released this week. This film depicts very graphically the danger of fire to grass, grain fields and warehouses, shows the new and improved safety devices for farm tractors and harvesting machines, and illustrates methods of preventing and fighting fires which have destroyed, in California, over one-half million dollars' worth of wheat and forage crops each year. It brings home, with compelling force, the necessity for care with fire in connection with the harvesting and storing of foodstuffs and feed. Copies of the film, which is 1,000 feet in length, and takes about 16 minutes to show, will be on exhibition (through the agency of the Farm Advisors and Forest Supervisors of the State) and may be obtained for use in other Districts for approximately $70 per copy. Watch for this film. It's a dandy!

Receipts for the District for the first nine months of the present fiscal year total $352,494.77 as against $334,605.97, showing an increase of $17,888.80. The largest increase is timber sales and the largest decrease is water-power receipts.

Assistance has been asked by the District Forester of the field men to report violations of the Forest laws in particular reference to the regulations covering the use of wheat products in hotels, restaurants, construction camps, etc.

The Laguna Mountains recreation area in the Cleveland National Forest has been opened to the public. This site has an elevation of approximately 6,000 feet and is now made readily accessible to the Imperial Valley on the east and the city of San Diego and the coast country on the west through the construction, under Forest Service supervision, of a road connecting with the main highway between these regions. Eleven groups of lots, varying in size from twenty to ninety lots each, have been laid out to conform with the general topography. Public camp grounds have been provided and the city of San Diego has selected an area for a municipal camp which, it is understood, will be improved at an early date.

The Forest Service has constructed several wells and has provided garbage pits and incinerators to meet the present needs. On April 1, fifty of the lots had been rented and there was so much interest in the project that it is believed it will not be long before a very large portion of the lots will be rented and occupied.

District 6

Forest Examiner Kan Smith has returned from a vacation trip through the East. He made the return journey from Topeka, Kansas, to Portland, by automobile, covering the twenty-four hundred miles in thirteen days. With a few exceptions, he found good roads along the route.

F. A. Leete, Conservator of Forests of Burma, India, who is visiting the forest regions of the United States for the purpose of picking up information regarding logging machinery and other forestry questions which may be adapted to use in the Indian Forests, spent the last week in this District. He has been visiting logging and milling operations in Portland and vicinity and spent two days at the Wind River Nursery and Experiment Station, accompanied by Mr. Munger.

A supply of log-scale calipers specially devised for use in water-scaling in Alaska has been received from Lufkin Rule Company. By use of this caliper the board-feet contents of logs of various lengths and diameters are secured at one reading.

The Boy Scouts of Portland have been getting daily instructions from Ranger Wright in throwing the diamond hitch and also acquiring other wrinkles of camp and outdoor life, in connection with Ranger Wright's preparations in the City Park, where he is getting things ready for the removal of the elk.

Dr. Issa Tinimura, Livestock Commissioner of Japan, making a survey of the sheep industry in the United States, recently visited the Wallowa Forest to get pointers on the handling and care of sheep.

The Trails Club of Oregon will have several week-end and Sunday trips in connection with its annual outing on the slopes of Mount Hood during July 17 to 27. Supervisor Sherrard is scheduled to lead two, one to the head works of the Portland water supply in the Oregon Forest and the other to the summit of Squaw Mountain, to visit the Forest lookout station. Deputy Supervisor Shelley will lead a party over the Eagle Creek Trail to Whitman Lake and back to the Columbia Highway by Herman Creek Trail in Columbia Gorge Park.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

June 10, 1918.

Major Greeley Describes Trip to the Front

Your letter is a reminder of something I should have done long ago. By way of making atonement to the "Weekly Bulletin," I will tell you something of the most interesting three days I have yet spent in France. You may remember that the Forestry Service of the American Expeditionary Force had its beginnings in a request from the British Army for a regiment of experienced woods workers. Soon after, this request was outshadowed by the enormous needs of the American Army in France for the same kind of trained personnel, and as fast as the Battalions of the 10th and 20th Engineers arrived on this side of the seas they were put to work on our own requirements. At last, however, we have been able to make good to the fighting Britons in the North; and one of the Battalions of the 20th is running its mills night and day on their orders.

Thereby hangs the tale of my three days. It was my good fortune to accompany Major Kellogg to the British Headquarters to adjust the details of this work. That was in itself a trip of absorbing interest. It was just after the first German drive on Amiens. All of one afternoon our car followed roads parallel to the battle front and from 10 to 20 miles behind it. It is impossible to convey a picture of the military activity all about us. The road was constantly blocked by fleets of motor trucks, from 25 to 150 in a convoy. We must have passed one at least in every two miles of the journey. One regiment of French 75's, mounted on motor trucks, was parking for the night. Another, drawn by shaggy horses, was in full march. Many of the motor convoys were loaded with soldiers. The traffic on these roads was like that on Pennsylvania Avenue at midday. French or English sentries at all the crossroads regulated the moving vehicles with an iron hand, and routed the different convoys over the roads assigned to them. We had to stop frequently and produce our pass. To the right or left of the main road we saw at frequent intervals a park of 50 or 100 trucks waiting for orders, or a battalion of helmeted French infantry in bivouac.

Toward the north everything thickened up. We passed a great park of English reserve guns, large and small, one cluster of aeroplane hangars after another, the cotes of carrier pigeons mounted on light auto trucks, a huge corral of English artillery horses, ammunition and supply dumps, and gangs of Hindoo and Chinese laborers. The larger towns were swarming with British troops. At several railroad crossings we were held up by long troop trains of "Tommies." After all of this bewilderment of movement and hurly-burly, we could not fail to be impressed by the atmosphere of quiet orderliness and system at the British Headquarters. As for the hospitality and good cheer of the British officers' mess, that is a story in itself.

Before leaving we had, thanks to General Lord Lovat, who directs the forestry operations of the British Armies in France, a day near the English front and a "close-up" view of the use of forest products by the British Engineers. We saw much of the work just behind the lines, the cantonments of reserve and support troops carefully camouflaged, several batteries of big guns, an occasional tank, bomb-proof shelters, dumps without number of ammunition, big shells, forage, rations, light railroad steel, artillery planking, ties, barbed wire, entanglement stakes, and lumber, and many aeroplane stations. Then the round black splotches of smoke made by bursting German shrapnel, high in the air, and the sharp detonations of British artillery warned us that we were near the real thing. We donned steel helmets, strapped our gas masks in place, and entered on of the ruined cities of the war. I will never forget it.

Imagine a city of 30,000 or 40,000 people in happier times, now deserted save for an occasional soldier in the streets, with half of the buildings in absolute ruins and most of the others with jagged holes torn out of roof or sides. Every few paces a front wall blown into the street reveals a sagging and charred

interior. A great cathedral in the center of the city looks like the trunk of a man hacked and mutilated by savages. Its steeples and pinnacles are gone; its wonderful flying arches are broken and staggering; great holes yawn in its roof and sides. A thin thread of smoke here and there among the rubbish is traced to a little stovepipe sticking up through the ruins. Each of these marks a dug-out where British support troops are quartered, several feet below the surface of the ground.

Guided by the sergeant of an observation detachment, we walked through the city and over a stretch of bare, grassy slopes beyond it to a knoll overlooking the opposing lines. The British trenches were just below us and the German trenches in plain view beyond them. Through the glasses we could pick out moving Boches behind their front lines and had a fine sweep of two miles or more of the two lines. Directly before us were the pathetic ruins of a little French village, now in "No Man's Land," with scarcely one stone left upon another.

It was a "quiet" day in this sector of the front. A British battery behind us was firing steadily, a shell every minute or so. You would catch the first flash of the discharge, then the cloud of yellow smoke, then the report, and then the whistle of the shell through the air. There was an occasional rap-rap-rap of machine guns. German shells were falling systematically upon one of the English support trenches, throwing up clouds of brown dirt. Every few minutes one would whistle over our heads and burst with a crash in the town behind us. They were trying to nail the British battery, but it kept steadily at its work. Several times the raw recruits of the party were thoroughly scared by the sudden "whang" of a small German high-explosive shell falling near us, followed instantly by the detonation and a cloud of earth. Four or five of them fell within 100 yards or so of our observation post.

Three huge observation balloons were up nearby, each with its bevy of protecting aeroplanes. British ranging and observation planes were constantly in sight, often flying deep into German territory; but to our disappointment no Boche machines came out to try conclusions with them. Instead, the German gunners peppered away at them with shrapnel. Five or six fluffy smoke balls would suddenly appear under or around a machine, but never very near.

Before returning we followed a portion of the original German trenches in this sector and had a wonderful illustration of the fearful destruction of British drum-fire when concentrated upon opposing trenches before an attack. Enough was left, however, to show the thoroughness of the German defenses. I was amazed by the masonry around their dug-outs and by the amount of iron used in supporting the trench walls and in constructing entanglements of barbed wire. The Boche is an indefatigable worker.

We rode back to the British Headquarters through a portion of the sector which bids fair to be the objective of the next German offensive. The reserves of big guns and the extent and completeness of the reserve trenches to a great depth in the rear give an uninitiated observer the impression of impregnability. Add to that the resolution of every British officer and soldier you meet and the possibility of the Germans ever reaching the English Channel seems very remote indeed.

The British Army has become a great master in the economical and efficient use of wood for military requirements. I was especially struck by the varied uses of the small and rougher forest products, like fascines and poles, which can be obtained in such quantities from the forests of northern France. The split pole, sawed through the middle giving one flat side, is utilized for all sorts of rough construction. Some of my notes on these points were incorporated subsequently in a general order for the guidance of American officers in our construction work near the front. Like a thrifty salesman, I was seeking to create a market for the by-products of our forestry operations and those which are the hardest to move. But an important principle is involved--that of making the most effective use of the materials which France offers us.

As for the Forestry Section, we are plugging right along, sawing wood and making life miserable for every supply officer in France who happens to have a steel rail or a piece of chain, or a wheeled vehicle of any description on his premises. We passed 14,800,000 feet in the April cut of sawn products. My bet on the May cut is 17,800,000 feet and it is the lowest in our office pool. Still we are far from turning it out fast enough to build the docks and railroads and warehouses demanded by our Engineers. All of which may be taken as a sure token that

the Americans are going to see this job through to a clear finish. Let no one forget that, or consider for a moment anything less than that.

Here's my very best to the "Weekly Bulletin." All success to it. The Service fellows over here wait its coming with the utmost zest.

Sincerely yours,
W. B. GREELEY,
Major, Engineers Reserve Corps.

The South Strikes Twelve in Timber Utilization

The traveler through the Southern Appalachians these days might well be excused for thinking that, in the matter of timber utilization, the millenium had about arrived. Evidences of how the war has stimulated intensive utilization are seen everywhere. Around the railroad stations are the familiar piles of telephone poles, ties, and posts. Along with these are piles of fuelwood, large quantities of which are being cut for army cantonments. Pieces run as small as two inches in diameter. One also sees piles of peeled pine and yellow poplar, in 5-foot lengths, to be used for pulpwood. Still other piles, this time of 5-foot chestnut occasionally as small as two inches in diameter, are for the tannic acid or "extract" plants. Wood is stacked around the larger extract plants in almost unbelievable quantities. One such plant has four miles of side track for the storage of acidwood, and bark.

Bark used for tannin is mainly hemlock and chestnut oak. Sometimes chestnut is peeled before it is put through the extract plant, and the wood is used afterward for pulp.

At Old Fort, N. C., black locust is being cut into treenails for shipbuilding. The wood is first cut into boards about 1¾ inches thick, and is then made into squares 19 inches in length.

A slack cooperage plant was visited which is using oak and pine to three inches in diameter. Obviously this is a form of utilization to be favored.

Utilization does not stop by any means with sound and standing timber. Defective poplar is used for pulpwood. Old chestnut rails are valuable for extract wood, while dead and down chestnut frequently forms one-third of the extract material. Walnut fence rails, it is said, are being sold for gunstocks.

Nor does utilization stop even with the tree and its branches. On the way to a cordwood sale the writer passed a still where sassafras oil was being distilled from the roots of the tree. Sassafras roots sell for 50 cents per hundred pounds, and the supervisor of the purchase area in question was figuring on a sale of this species. Another supervisor had an application for laurel and rhododendron roots for making "French" briar pipes. The mountains in the Southern Appalachian National Forests and purchase areas are scoured for plants valuable for drugs and oils, and late in the year galax, holly, pine boughs, mistletoe, and ground pine are sought for sale during the holiday season. In the fall, too, there is a harvest of chestnuts, hickory nuts, walnuts, and butternuts, all of which bring good prices.

Eastern portable sawmills differ but little in equipment and operation from those in the West. There is a commendable tendency in the East to grade the product rather than to sell mill run, and most of the mills have a sawdust conveyor and an edger. Mills sets are often made for as little as 30,000 board feet of timber. This makes it possible to cut over for acidwood, poles, and saw timber, taking each species for the purpose for which it is most valuable.

From the standpoint of National Forest timber sales, this situation is very satisfactory, for it makes it possible to handle areas in small units, worked progressively. This, in turn, makes for a permanent population and an ideal system of forest regulation.

C. G. SMITH.

Christmas Boxes Reach France

After considerable delay the three Christmas boxes, two prepared by Mrs. Kiefer and her friends and the third by members of the Washington Office, have reached France. Their arrival was announced by the following cablegram:

> "Cannot wait for letter to express heartfelt thanks forestry troops for your motherly interest shown in splendid Christmas boxes just received.
>
> Colonel Woodruff."

The boxes referred to were turned over on November 15 to the Red Cross for forwarding and considerable anxiety was felt by the contributors to the boxes as they had not reached their destination nor had it been possible to get any trace of them.

Red Cross Drive

The employees of the Washington Office subscribed a total of $1,313.15 to the Red Cross Fund. One hundred twenty women, representing 86 per cent of the total number of women employees, subscribed $658.45--an average of $5.48--and 99 men, representing 69 per cent of the men employees, subscribed $654.70--an average of $6.61 per employee.

Massachusetts Receives Gift of Forest Lands

A forest of 1,000 acres, as a memorial to Arthur Warton Swann, has been presented to the State of Massachusetts by members of the family, in whose possession the land has been for the past sixteen years. In making the conveyance to the State no restrictions are imposed upon the public in the management of the property. It is given as a forest and not as a park.

The tract has been under forest management since 1905, in accordance with a plan of management outlined by R. C. Hawley, now of the faculty of the Yale Forest School, but at the time connected with the State Forest Commission, which now becomes custodian of the tract.

Inspector Nelson Starts on Field Trip

Inspector of Grazing Nelson has left Washington on a four-months' field trip. After spending a month on the Arkansas, Ozark, and Wichita Forests, he goes to District 3 for an inspection of grazing matters,especially on the Crook and Coronado Forests. En route to Ogden, Mr. Nelson will make inspections of the Kaibab, Sevier, and Fishlake Forests, and later of the Humboldt.

In District 5 he goes to the Tahoe and Klamath and in District 6 will investigate the brush areas on the Crater and the water development work on the Deschutes. The swing around will be finished by a stop at Missoula with visits to several Forests as conditions seem to warrant.

War Brevities

Standardization of farm wagons is under way. Recommendations have been made to the Commercial Economy Board by the National Implement and Vehicle Association that a standard track of 56 inches be adopted to replace the 60-inch track used in the East, South, and Pacific Coast, and the 54-inch track used in the Middle West and North. The 56-inch track is the standard for motor vehicles throughout the country. A standard box or bed of 38 inches outside measure was also recommended; three standard heights of wheel, 40, 44, and 48, these to be used in combination, permitting the use of but one standard gear; tire width to be restricted to 2, 3, and 4 inches.

Foreign Students at Yale Forest School

Three Norwegian graduates of Christiana University will enter this year's class at the Yale Forest School. This fact is of particular interest as students from Norway have in the past been in the habit of attending the forest schools in Germany.

Departmental War Camp Community Service

The Forester has appointed Mrs. Lilian T. Conway, Miss Josephine L. Saunders, and L. C. Everard to represent the Forest Service in the proposed Department organization in Washington under the auspices of the War Camp Community Service. A preliminary meeting to outline the purpose and to perfect an organization will be held on June 10.

Colonel Graves and Raphael Zon on National Research Council

At the request of the President, Colonel Graves and Raphael Zon have been designated by Secretary Houston members of the National Research Council. Under recent Executive Order the Council has been made permanent.

Washington Notes

The large model, showing the use and administration of the National Forests made for the San Francisco Exposition, is now on exhibition at the National Museum in the room devoted to Wood Technology. Later bromides and transparencies on the work of the Service will be added.

Grazing Examiner C. L. Forsling, in charge of the Jornada Range Reserve in New Mexico, is in town on a two-weeks' detail.

G. B. MacDonald reached town during the week and is the latest recruit to the force engaged in the production study of essential war woods.

C. R. Tillotson is back in town from a flying trip to Missouri where he made, at the request of the Signal Corps, an estimate of cordwood on leased lands of the Mid-Continent Iron Company. The company is under contract to furnish wood alcohol and acetate of lime to the Government and the estimate was made to determine the ability of the company to fulfill the contract. The tract comprises 23,800 acres of land from which the pine was cut twenty years ago and which is now a virgin stand of hardwoods. Various species of oak make up 85 per cent of the stand, hickory about 10 per cent, and the remainder is made up of black walnut, elm, gum, making an average of about 20 cords per acre. This constitutes a six-years' supply. The daily consumption is about 200 cords.

Departmental exhibits will be shown at from 25 to 35 expositions, on five circuits, beginning about the first of August and extending for four months. The Forest Service will be represented in these exhibits.

Franklin H. Smith has left town on a two-weeks' trip to New York and the New England States, rounding up some of his careless correspondents.

Approximately 950,000 acres of land in Colorado, situated in a comparatively solid body east of the San Isabel Forest, have been designated as suitable for entry under the 640-acre stockraising homestead law. In South Dakota, 340,000 acres lying 12 miles northeast of the Black Hills Forest have been designated and in eastern New Mexico about 100,000 acres near Santa Rosa. The proclamation covering these lands takes effect June 10, 1918.

Madison Laboratory Notes

The spirit shown by the employees in the Third Liberty Loan drive was followed by a subscription of $1,000 to the Red Cross Fund, doubling the quota assigned to the Laboratory by the local committee.

District 1

Five boss packers, out of the six selected from thirty men enlisted as army packers at Camp Lewis, had learned their business as employees of the Forest Service.

The Lolo planting job of 507 acres on Flat-Rock Creek has been completed; 438,000 yellow pine seedlings were set out. Practically all the labor was obtained from Missoula, and proved very satisfactory, from 60 to 65 per cent staying through the entire job, which was in strong contrast to last year when men quit after a day's and in some cases half a day's work. Ranger Haun, at Haugan, was in charge of the project.

The N. P. R. R. has leased 40,656 acres of their holdings in the Gallatin Forest to the Taylor's Fork Cattle Company, for $1,587.57. On the basis of 1,486 cattle grazed on these lands last year the company is paying at the rate of $1.07 per head, or over three times the fee charged by the Forest Service. Negotiations are also in progress between the N. P. R. R. Co. and the Lone Mountain Sheep Association for the lease to the association of 25,600 acres of lands for the sum of $1,000. The lands are rough and mostly heavily timbered. Their estimated carrying capacity is 9,000 sheep. The lease will, therefore, cost the sheepmen 11 cents per head of sheep, or almost twice the fee charged by the Forest Service.

The male members of the Service at Missoula, under the encouraging plaudits of the feminine contingent, recently disported themselves on the University athletic field. Lansing and Ewen for Engineering and Halm for Operation rolled up the most individual points. The most spectacular performances were Porter in the shot put, Rutledge in the broad jump, and Girard in the log-chopping contest. Engineering won the relay race hard pushed by Operation.

Hugh Kent, of Engineering, resigned from the Service last week to serve in the Army, and left Missoula for Augusta, Ga. He enlisted in the Ordnance Corps.

W. M. Nagel returned to the District Office on May 15, and leaves early this week for Avery, to assist G. W. Jones with the planting work on Slate Creek.

Awards in the essay contest held in Montana and Northern Idaho and Northwestern Washington under the auspices of the District Office have been made. In Montana the contest was open to 150 high schools, in Idaho and Washington to 58, the first and second prizes in each instance going to girls.

District 2

A call is being made on the Forest Service to assist, if in any way possible, in taking care of additional stock on the Forests, owing to the extreme drouth in the southern part of Colorado and in New Mexico. Unfortunately, there is but little unallotted range in this District and this in such widely scattered regions as to be of little value under present circumstances. A small number of cattle has been put on the allotted sheep range on the Durango.

Ranger Leighou of the Black Hills is now on the Montezuma in charge of a timber survey party of twelve Forest students engaged in a 5½ months' project estimating and mapping a 100,000-acre tract with an estimated stand of from 300 to 400 million feet of virgin yellow pine timber, for which application has been received. Approximately twenty years will be necessary for the exploitation of the timber, involving the construction of 40 miles of main-line logging railroad and a similar mileage in temporary spurs. Approximately 100 million feet of private timber will be logged at the same time. The logical mill site is at Dolores, Colorado, where connection with the Denver & Rio Grande is had by a branch road.

The Trinchera Timber Company of Sargent, Colorado, already operating several sales on the Cochetopa Forest, has been awarded a further sale of 6,000,000 linear feet of mine props at $.22 per C lin. ft. and 190,000 linear feet of mine timbers at $7.05 M linear feet adjacent to the Denver & Rio Grande railroad near Marshall Pass. Products from these sales supply the mines throughout the State.

District 3

A total of $20,600 was subscribed to the Third Liberty Loan by members of this District, participation by the Forests and District Office being:

District 3 (Cont.)

Apache	$ 700	Gila	$1,350	Sitgreaves	$ 900
Carson	1,100	Lincoln	1,300	Tonto	1,850
Coconino	1,700	Prescott	850	Tusayan	850
Datil	800	Santa Fe	3,200	Grand Canyon	400
District Office			$5,350	Fort Valley	$250

The Flagstaff City Park, the greater portion of which is on Forest land, will be improved as a camp ground for motorists, in accordance with a plan developed by National Forest Examiner Lessel, along the lines of National Forest camp grounds. The Lake Mary camp ground, on the Coconino, one of the most extensively used areas, is also undergoing improvements.

A sanitation plan has been put in effect in several logging camps. Its inauguration was met with opposition in some camps, requiring almost an ultimatum; in other instances they were heartily welcomed. This plan is the result of demands made by striking lumberjacks on the Coconino Plateau last fall and was worked out by the Forest Service on the grounds of public welfare and health.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

June 17, 1918.

The Shipbuilding Problem

The following letter is taken from the June 3 Weekly Bulletin for District 1:

About eight months have elapsed since I left Missoula for Washington to help out in the organization of the Forest Regiment and, if everything worked out all right, to go to France with the 20th Engineers. Had I followed personal inclination I should have gone. Through a queer turn of circumstances I have found myself out here on the Pacific Coast acting as an adjuster in labor relations and as Employment Manager of a branch office of the U. S. Employment Service concerned with mobilizing man-power for war essentials.

Nothing could have been imagined that was more chaotic than the industrial mobilization of our man-power. Without an industrial classification of all men between 18 and 60, mobilization takes place through the slow process of raising wage rates and waiting for men to move in the direction of the high-wage scale. Constant pirating of men and demobilization result. Time is the essence of victory, and the more scientific and effective method of mobilization by means of a compulsory industrial classification must be used.

Seattle shipyards have been my particular concern, and efforts have been exerted to meet their man-power needs. Twenty-five thousand men have passed through our office, with a resulting total net increase in the shipyards in the last five months of 5,000 men--the difference represents the overturn.

Little or no scientific work has been done in making competent analyses of needs. Without such investigations the employment offices go it blind. Present industrial relations have two groups--one dealing with the controlling philosophy of 3 men for one job and the other of 3 jobs for one man. Scientific and proper handling means as near as possible one job for one man.

Centralization of orders here has made it possible to prevent the barbarous practice of having men traveling from one yard to the other for work, or standing at the shipyards gates day after day without any consideration. Cooperative relations with the labor organizations has made possible a better spirit among the men.

Many irresponsible statements have been made about labor slacking. I, personally, was a member of a special group of men who were asked to check this. This check covering eight steel shipyards--all in the Columbia and Puget Sound District. It showed conclusively that labor is doing the work. The proof of the pudding is the eating. Ship production records are being made and broken out here.

Rapid expansion of the industry naturally has resulted in many defects of management, which are responsible to a great extent for poor records. Sometimes it has been shortage of steel, sometimes shortage of tools, lack of compressed air, and the like. Such things are being rapidly remedied, much to the improvement of the morale of the working forces. Space does not permit me to go into great detail, except to say that the above judgment is based upon a record of 5,000,000 rivets driven by 900 gangs, and from data taken directly from the books of the companies.

We are beginning to really hit our stride in shipbuilding. It takes about one man for every 20 tons produced. So you see to produce 6,000,000 tons would take approximately 300,000 men. One of our biggest jobs is to locate, examine, and place the men by the quickest possible method, so that there is no delay in building the ships we need so badly.

I am now finishing up my work here and in the next few days expect to leave for Portland and thence to Washington, D. C. What I will do from then on I will have to decide when I get back. It will be some work tied in with war activities.

I miss all the personnel of District One a very great deal. Strange does it seem to be away.

F. A. SILCOX.

From the Weekly Bulletin, District 1:

Middletown, Pa.,
May 18, 1918.

From the Home Front

I am now at the Aviation General Supply Station and, I am sorry to say, it looks as though I will be here for a considerable length of time.

The accommodations are way ahead of Waco in many respects, but we do not have the liberty that we did down there, although there are only about two hundred soldiers here. The warehouses are monstrous affairs, equipped with cranes, electric trucks, and other modern equipment for handling freight. They are permanent structures, and surrounded by a high iron fence, the gate of which is always kept locked except when soldiers are going on or off duty. At night the warehouses are guarded constantly and illuminated with flood lights. Everything used by the Aviation Section, pins to trucks and aeroplanes, is kept on hand. You would be surprised at the large machinery and other equipment kept on hand for use in the various camps. The inventory for the smaller articles looks like a Sears-Roebuck catalogue. I have found out that a large Army camp requires practically everything used in a city except civilian clothing.

Our barracks were just completed the day we arrived and are modern in every respect. It is much better than living in tents.

Middletown is just nine miles from Harrisburg, the capital. I was up to Harrisburg last evening, and I hope I can see New York and Washington while I am here, but passes for more than three or four hours are extremely hard to get.

The personnel of this squadron is excellent, and things are executed with a snap and vim. The major is a West Point man and very strict, while all but one or two of the noncommissioned officers are college graduates.

I am working as stenographer for the first sergeant and have an easier job than the fellows who came up with me, for they are working in the wa house at duties similar to those of freight-house employees. Our hours are seven-thirty to four-thirty, and on Monday, Wednesday, and Friday evenings we have to either work or drill. The food here is very poor, worse than when we first went to Waco, but the worst thing is the thought of not getting to France. I don't know what I wouldn't do to be able to go over, although I know conditions there would probably be worse than here? Every evening here there is considerable grumbling among the men, but before many minutes they start joking each other, and then it is a regular circus to sit and listen to the remarks flung at each other.

Middletown is one of the most peculiar towns I was ever in. There are only about half a dozen houses in town; the others look as though they were built about the time of the Revolution, as some of them actually were. There are no lawns or front yards, for the houses are built flush with the rough brick walks. Although the population is about six thousand, there are only sixty-four telephones in town, and most of these in the car shops, hosiery mill, and other concerns that keep the town up. Only a few of the houses are electrically lighted, the old kerosene lamp still holding its own here. Harrisburg is real modern, and has a number of fine stores. The Capitol building and grounds are beautiful.

Best regards to all.

C. A. SKEELS,
634 Aero Squadron, Middletown, Pa.

Chairman Hurley Tells About Ships

Chairman Hurley, of the U. S. Shipping Board, gave some interesting figures in an address delivered last week.

Mr. Hurley stated that on the first of June American-built tonnage had increased to over 3,500,000 deadweight tons of shipping. In the eleven months from July 1, 1917, to June 1, 1918, there had been constructed in Americ shipyards a tonnage equal to the total output of American yards during the entire previous four years. Approximately 1,000,000 tons of new construction has been added to American Shipping in the last ten months, for it was not until

Chairman Hurley Tells About Ships (Cont.)

August 3 of last year that the commandeering order went into effect. Also 118 German and Austrian vessels have been added with a total deadweight tonnage of 730,176. From the Dutch there were requisitioned under the order of the President 86 vessels with a total deadweight tonnage of 526,532. In addition there have been chartered from neutral countries 215 vessels with an aggregate deadweight tonnage of 953,661. This tonnage, together with the vessels in the coastwise and Great Lakes trade, gives a total of more than 1,400 ships with an approximate total deadweight tonnage of 7,000,000 tons now under the control of the United States Shipping Board.

There are now under contract and construction 819 shipbuilding ways including wood, steel and concrete, which is twice as many shipbuilding ways as there are in all the rest of the shipyards of the world combined. Our program for the future should appeal to the pride of all loyal and patriotic Americans. It calls for the building of 1,856 passenger, cargo, refrigerator ships and tankers, ranging from 5,000 to 12,000 tons each, with an aggregate deadweight tonnage of 13,000,000. Contracts have also been made for 200 wooden barges, 50 concrete barges, 100 concrete oil-carrying barges, and 150 steel, wood and concrete tugs of 1,000 horse-power for ocean and harbor service, aggregating a total dead-weight tonnage of 850,000.

Exclusive of the above, 245 commandeered vessels, taken over from foreign and domestic owners, are being completed by the Emergency Fleet Corporation. These will average 7,000 tons each and aggregate a total deadweight tonnage of 1,715,000.

This makes a total of 2,101 vessels exclusive of tugs and barges which are being built and will be put on the seas by the Emergency Fleet Corporation in the course of carrying out the present program, with an aggregate deadweight tonnage of 14,715,000.

Spruce Production in the Southern Appalachians

The general investigation of spruce supplies and production in the Eastern United States has now been made by the completion of the work in the Southern Appalachians. This region is already producing a fair amount of good airplane material and is capable of producing considerably more.

The production in the Appalachians is held at a low level by the scarcity of labor. The greatest shortage is in North Carolina and Tennessee, where the mills are in most cases sawing to about half capacity only. The difficulty is in getting labor for railroad building, and crews to work in the hard logging chances in the high spruce belts. It may be that direct governmental action is necessary to supply this deficiency.

The lack of proper shipping facilities is also hindering the operators. Cars are very scarce in North Carolina and Tennessee and also in parts of West Virginia. Permits to ship commercial orders are almost impossible to get throughout this region. This requires immediate relief. From a financial standpoint it is manifestly impossible to carry on operations when only about 10 per cent of the products can be transported to market. The absolute physical limit of yard capacity is, in the case of some mills, being rapidly approached. On reaching this limit these mills will have to shut down until such time as shipments will again serve to give room for more lumber. Such shutdowns would in most instances be fatal to operation for the closing of the mill would scatter the labor and make it extremely difficult to later build up another force.

The region is one of good possibilities, but needs a strong governmental policy to bring out its full efficiency or even to keep it at its present rate of production.

KENNETH McR. CLARK.

Constitutional Convention Defeats Taxation Reform

Taxation reform to grant relief to owners of growing timber was defeated in the New Hampshire Constitutional Convention now in session. The action was a considerable surprise in view of the extensive propaganda that had been carried on for months to secure the passage of the proposed amendment to the State constitution. A similar amendment was passed at the last convention in 1912 but failed of ratification by the people through failure to receive the necessary two-thirds vote.

Second Red Cross Drive for the Department

A total of $13,666.83 was subscribed by 3,115 employees of the various bureaus and offices of the Department of Agriculture stationed at Washington, making an average subscription of $4.38. The Forest Service subscribed $1,306.50, at an average of $5.96, and ranks fifth in number of employees and amount subscribed. The Bureau of Markets leads in number of employees--577--and subscriptions totaling $2,383.44, or an average of $4.13.

War Brevities

Captain Ringland has been transferred to combatant service and assigned to the Pioneer Engineers whose ability as fighters has been shown in recent activities on the West Front. It is reported that Captain D. T. Mason will succeed Ringland as Regimental Adjutant.

A total of $365,738,580.48 is now held (May 31) as trust accounts by the Alien Property Custodian, covering 20,441 individual accounts over which he has assumed jurisdiction since the opening of the war against Germany.

Word has just been received of the promotion of Major Greeley to Li tenant-Colonel of the National Army with assignment to the Tenth Engineers (Fo est).

Washington Notes

K. McR. Clark returned from the survey of airplane spruce in the Southern Appalachians and left again for New England to investigate the supply and production of various species needed for war purposes.

Russell Watson is now working with F. S. Baker in the Central States stimulating the production of black walnut for propellers and gunstocks.

R. F. Hemingway has returned to the office after completing his investigation of the tannin situation in Pennsylvania and the Lake States.

District 1

Supervisor George E. Martin of the Custer has resigned, and will be succeeded by J. C. Whitham of the Sioux Forest, which will be merged with the Custer.

Herbert Kuphal has been granted leave without pay to enlist in the Photographic Division of the Signal Corps. Effective June 1.

Forest Clerk William L. Lay, Custer National Forest, has enlisted in the Marine Corps and has been granted military leave.

C. A. Kutzleb, Forest Ranger, Beaverhead, has been drafted for service in the National Army, and has been granted military leave.

During the past week the fire situation became acute on the Flathead, Helena, and St. Joe Forests. About three hundred were employed in fighting the several fires costing over a thousand dollars a day for extra wages and supplies The situation was aggravated by prevailing high winds, high temperature, and the driest June on record.

Awards in the essay contest held in Montana and Northern Idaho and Northeastern Washington, under the auspices of the District Office have been mad In Montana the contest was open to 150 high schools; in Idaho and Washington to 58. The first and second prizes in each instance going to girls.

District 2

Deputy Supervisor Charles L. Cecil of the Superior Forest has left the Service and is now at Camp Custer, Mich., in attendance at the fourth officers training school.

George E. Trowbridge has returned to Denver as Assistant to the Solicitor, succeeding R. F. Feagans, who has been in charge since Mr. Trowbridge's transfer to Washington. Mr. Feagans resigned to go into private practice.

Spring nursery operations were also recently completed at the Bessey Nursery on the Nebraska Forest. Approximately 1,400,000 yellow and jack pine seedlings were transplanted.

About 600,000 young trees were set out on an area of 725 acres on the recently completed planting operations on the Bear Creek area west of Colorado Springs. Considerable difficulty was experienced in holding men, owing to the poor class of labor obtainable and to the rough country covered. Beginning on March 25 with a crew of 75 the project was completed on May 14 with but 30 men, notwithstanding that between 400 and 500 men, pool-hall idlers and similar classes of help tried their hands at the job.

Miss Bessie Fox, the first woman fire lookout in District 2, is on duty at the Bear Mountain Station of the Harney Forest. Miss Fox is employed on a per diem basis and will be on duty during the danger period only. In case of rain she will return to her home, which is close by. Miss Fox has grown up in the Hills and has a liberal education in the out-of-doors. She can ride and pack, knows how to take care of herself and her horse and is familiar with the country under control from the lookout. Although she may not be able to wield an axe or shovel with as much force as a man, her knowledge of the mountains is sufficient to enable her to reach a fire and direct the fighting, if necessary.

The final report of the 1917 lumber production in Colorado, recently submitted to the Forester, shows 100 mills with a total output of 71,312 M ft., 35,000 shingles, and 491,400 lath. The estimated output of three mills not reporting is 2,050 M. The daily capacity of the 100 mills reporting is 1,810 M. In the order of importance, the output by species is as follows: Western pine, 35,528 M; spruce, 22,896 M; lodgepole pine, 7,673 M; and Douglas fir, 3,756 M. In South Dakota 28 mills reported a total output of 29,045 M ft. of western pine, a daily capacity of 357.5 M. Fifty-one mills in Wyoming reported a total output of 7,932 M, 65,000 shingles, and 20,000 lath, the daily capacity being 356 M. The estimated output of four mills not reporting is placed at 1,000 M. In the order of importance the output by species in Wyoming was: Western pine, 3,678 M; lodgepole, 1,818 M; Douglas fir, 1,241 M; and spruce 1,084 M.

District 3

Depredations by wolves have become so serious along the south end of the Guadalupe Mountains that the Forest Service and Biological Survey are making special efforts to locate and exterminate the wolves. The extensive trapping carried on at the north end during the past season seems to have driven the wolves to the south.

A serious fire situation due to light precipitation and prevailing high winds existed throughout the District during the month of May. There were 47 Class A, 27 Class B, 15 Class C-1, 2 Class C-2, and 1 Class C-3 fires burning over an area of about 6,000 acres. Expenditures for fire suppression since January 1 approximate $7,000.

District 4

Larkspur eradication work will be initiated at once on seven Forests of the District. The work is being done in cooperation with the stockmen on a fifty-fifty basis. If the labor situation will permit, it is anticipated that from $8,000 to $10,000 will be expended by the Service and stockmen for eradication work during the next twelve months.

The Forester has approved a series of six working plans for intensive nursery experiments at the Cottonwood Nursery to work out a nursery practice for Douglas fir.

Assistant District Forester Fenn has returned from a tour of the Forests in central Idaho, the main purpose of which was to discuss a proposed tie operation on the South Fork of the Payette River with the purchasing agent of the Oregon Short Line Railroad. The company is ready to enter into a three-year contract to purchase 450,000 Douglas fir ties annually, provided a tie operator with sufficient capital to carry on the operation without delay can be interested. The Office of Silviculture is now preparing a digest of the reconnaissance reports and the reports on the feasibility of driving the river, which will be submitted to timber operators.

The fire situation in central Idaho is rapidly reaching a very alarming stage. The weather is very hot and dry and the snow still in the mountains is disappearing very fast. If relief in the form of heavy rains does not occur in the next month, the fire hazard will be fully as bad as it has ever been. Labor conditions are the worst ever, and, while all of the Forests have been able to secure the desired number of men for lookouts, patrolmen, etc., the supply of labor available for actual fire fighting will be very scanty and difficult to secure. Throughout the central Idaho country there is also a marked shortage of horses available for pack and saddle purposes and it is unfortunate that the restrictions imposed upon the purchase of motor vehicles will make it impossible to meet the situation by substituting a limited number of light motor trucks. It has been decided that the best plan of campaign will be to employ the largest number of reliable patrolmen and guards we can secure, thus stopping the fires in their incipiency, even though this necessitates a draft upon our fire-fighting fund. The hazard is decidedly abnormal, and use of the emergency fund for the employment of patrolmen will be amply justified.

District 5

Four Mexicans are now in the Sacramento jail bound over by the U. S. Commissioner to await trial on the charge of setting seven fires in Tuolumne County between Strawberry and Camp Lowell. The arrested men were employees of the Standard Lumber Company, operating in the vicinity and which has experienced considerable trouble through the existence of saloons at Strawberry and Pinecrest, where the irresponsible labor has been able to obtain intoxicants. The situation has now been cleared up by the County Supervisor's revoking the license of the saloon at Strawberry, on presure from the State Food Administration and Council of Defense. The Forest Service had already cancelled the original special-use permit for the saloon at Pinecrest by substituting one not authorizing the sale of intoxicants.

Setting of forest fires is going to be made very unpopular in California through the effective work of the Forest officers. Ralph Garlinghouse, a member of the State Highway Commission and chief of a party at work near El Portal, was arrested for starting a forest fire which burned over 200 acres before it was got under control. Garlinghouse has indicated willingness to plead guilty. The State law provides a minimum fine of $50, or a jail sentence of six months, or both.

Tentative arrangements have been made by Supervisor Tillotson of the Cleveland with President Wegeforth of the San Diego Zoological Gardens to turn loose a herd of 21 elk in the game refuge in the Laguna Mountains. To lessen cost of transportation an effort is being made to get the use of the Army trucks at Camp Kearney. The truck drivers are sent out on practice runs into the mountains and the trip from San Diego to the Lagune Mountains over the new road would serve the purpose and in addition solve the question of transporting the elk.

District 5

Fifty dollars and a fifteen-day jail sentence represent the cost to Jeff Hildreth, a rancher in Trinity County for letting a fire escape from his own to Government lands. On recommendation of the Forest Service, the jail sentence was suspended. Hildreth in clearing some land set a fire to underbrush and during his absence in the afternoon, while getting his mail, the unextinguished fire spread to

adjoining Forest land, necessitating the organization of crews by the Forest Service to put it out. The conviction of Hildreth is the fifth in California this season for similar offenses.

The protection against and suppression of forest fires on the lands of the McCloud River Lumber Company will be undertaken through a cooperative agreement just made with the Forest Service. This is in line with a plan whereby owners of forest lands by the payments based on an acreage charge depending on local conditions secure the services of the National Forest fire organization for the detection and suppression of fires. President Queal of the Company has been greatly interested in the protection of the Company holdings. In 1905 the Forest Service outlined a preliminary plan of fire protection for its holdings whereby the Company installed a telephone, divided the holdings into blocks, and employed a patrolman.

District 6

The Boy Scouts of Portland have selected Wahtum Lake on the Oregon Forest as the site for their permanent summer camp. A building to accommodate 150 persons will be erected, and the plans call for a general development of the site for camp purposes.

Forest Examiner T. J. Starker has returned from Yacolt, Washington, where he supervised a shipment by the Clarke County Timber Company of three large No. 1 Douglas fir logs, 32 to 40 feet in length, to the Forest Products Laboratory at Madison, for experimental work to determine their adaptability for laminated airplane construction.

Assistant District Forester Mackenzie left for Kamloops, B. C., to attend a conference of Canadian officials and stockmen to devise a plan for the administration of the public grazing land in British Columbia. It is planned to place the open range under a system of management to assure the permanency of the range for growing meat, hides, and wool, using as a basis a modification of the grazing scheme in force on the Forests.

Three members of the District Office have recently left for their summer work in Alaska. Forest Examiner Ireland will be engaged in land classification work on the Tongass. Lumberman E. C. Erickson and Forest Examiner Kan Smith will be occupied with work in connection with the discovery, cruising and getting out of spruce suitable for airplane construction.

Deputy Supervisor Treen of the Snoqualmie has been spending a few days in the District Office. He visited Eagle Creek Camp Grounds on the Columbia River Highway to note the recreational developments and to secure ideas for the improvement of the Denny Creek Camp Grounds on the Snoqualmie.

Assistant District Forester C. J. Buck is Forest Service representative of the Federal Employees War Savings Club, recently organized in Portland. It is the purpose of this club to unite all federal employees and increase their activity in war savings and other patriotic work. One essential to membership is that a candidate should own at least $1 worth of war savings stamps.

Timber survey work in District 6 for the present season is being concentrated in spruce territory on the west side of the Olympic Forest. Five technical men with a number of temporary assistants are combing all the country north from Quinault Lake not previously cruised.

While crossing the street near his residence recently, District Forester Cecil was struck by a flivver and thrown a dozen or so feet. Aside from a few bruises and a slight limp he was uninjured physically. Assistant to the Solicitor Staley now has under consideration the question of recovering damages to cover the mental anguish incident to being attacked ruthlessly by a Ford.

There are now 74 live District Forester's timber sales in District 6, scattered over twenty of the Forests.

F. A. Leete, Conservator of Forests, Burma, India, made an address on forestry problems in Burma at a recent meeting of the Portland Section of the Society of American Foresters, held at the residence of A. G. Jackson. Mr. Leete is making a six-months' trip through forest regions of the United States studying logging and milling machinery and other forestry improvements which may be adapted to use in the Indian forests.

Forest Supervisor H. R. Rankin has been transferred from the Siuslaw to the Crater succeeding Supervisor Erickson, who resigned. Deputy Supervisor R. S. Shelley of the Oregon has gone to the Siuslaw as Supervisor.

One hundred and thirty men have been furnished for military duty by District 6. Of the remaining yearlong men in the District, only seven are of draft age and come under Class I. Two of these have been rejected for failure to pass the physical examination. The other five are waiting to be called.

District 7

Assistant District Forester Stabler has made his escape from Washington on a two-weeks' general inspection trip to the Shenandoah Forest.

Prohibition has hit District 7. The Chess & Wymond Company, distillers of whiskey at Louisville, Kentucky, and purchasers of oak stave timber from the Ozark Forest, have asked for cancellation of existing contracts with the Forest Service. This company manufactures its own barrels and has been purchasing about two to three million feet annually, paying from $4.50 to $6 per thousand. Restrictions placed on this business by prohibition legislation has caused them to go out of business.

The purchase of 54,672 acres of land for National Forests in the White Mountains, Southern Appalachians, and Arkansas has just been approved by the National Forest Reservation Commission. These lands solidify the Government holdings and block in with others previously approved for purchase.

The largest tract comprises 31,667 acres in Polk Co., Tenn., with a stand of about 20 million feet of merchantable timber, and fills out the entire southern end of the Cherokee Purchase Area.

On the Natural Bridge Area in Virginia, 3,990 acres were approved for purchase, and on the Shenandoah Area, 4,058 acres.

In the White Mountain Area, 2,756 acres were approved.

On the Unaka Area in Tennessee, 3,000 acres were approved, and in Alabama there was a total of 6,200 acres scattered over 28 different tracts.

Arkansas was represented by the purchase of 997 acres, the first lands to be acquired through purchase. They block in with the Arkansas and Ozark Forests previously created from the public domain.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

June 24, 1918.

District 2 Goes Over the Top in Land Classification

The District Forester at Denver announces the completion of the land classification work on all Forests of District 2. Actually, all reports have been received and approved by the Washington Office, except one covering 562 acres in the Durango Forest. District 2 is the first District to complete this work. They even classified the Minnesota National Forest for good measure, though the lands are not subject to the Forest Homestead Act. Classification, however, prevents the possibility of any serious future misunderstanding regarding the character of the lands in the Minnesota.

All lands in the National Forests of District 7 have been classified, except 8,779 acres in the Florida National Forest. The Washington Office understands that the work is practically completed in District 1 and District 4, but a number of reports have not been received.

In announcing the completion of the classification work in District 2, the District Forester says: "This does not necessarily mean that there is nothing more to do under the subject. We are receiving appeals and petitions for review of the classification upon definite areas. So far, each reexamination has confirmed the classification."

"It seems very desirable," he goes on to say, "to continue to make careful observations of agricultural effort within the Forests, not only on lands which have been restored under the Forest Homestead Act, but other lands which have been acquired under the agricultural land laws."

The Year's Biggest Timber Sale

The largest sale in point of revenue during the current fiscal year has just been made to the Lassen Lumber and Box Company, which will operate on the Lassen Forest. About $600,000 is involved. The award was originally made to another company, which failed to execute its contract and bond within the specified time. In this connection, the Solicitor's office held that the 10 per cent forfeiture provided for in such cases could not be retained unless it could be shown that damages had been sustained by the United States or that a stated sum had been agreed upon as a forfeiture.

Service Makes Scenic Development Plan for DuPont Road

At the request of the State Board of Agriculture, the Forest Service has made a plan for the improvement and development from a scenic standpoint of the woodlands, forests, and open lands along the DuPont Road, in Delaware. G. B. Sudworth is the Service representative who made the study of conditions along the road and prepared the plan.

The DuPont Road, which, when completed, will extend from one end of Delaware to the other, forming a part of the Lincoln Highway, is a gift to the State from E. C. DuPont, the powder manufacturer. The right of way purchased by Mr. DuPont and deeded to the State is 200 feet wide. The roadbed is of cement. Some 40 miles of the southern end of the road have been completed and opened to travel. Under the terms of Mr. DuPont's gift the upkeep and control of the road are in the hands of the State Board of Agriculture.

Lumber Cut in 1917

The lumber cut of the United States last year, according to the final computation by Forest Investigations, amounted to 35,831,293,000 feet. This is about 10 per cent less than the production in 1916. Curtailment of private building operations, scarcity of labor, transportation difficulties, lessened demand by wood-using industries, and a more or less general dislocation of lumber distribution through ordinary channels of trade are responsible, our statistical sharps say, for the slump. The number of mills reporting for 1917 was 16,408 out of the 24,815 believed to have operated in the year.

New Limbs for Old

At the request of the Surgeon General's Office the Forest Service has made a study of the artificial limb industry. The Surgeon General estimates that for each 1,000,000 men on the firing line there will be needed 1,000 artificial limbs each month. It is planned to provide the injured with temporary limbs as soon as possible and to fit them with permanent ones upon their return to this country. Industrial Investigations is conducting experiments looking to the perfection of a type of temporary limb.

Willow is the principal wood used for artificial limbs, and the raw material is usually air seasoned from two to five years. While there is no scarcity of willow at present, the quantity of air-seasoned wood available is very limited. Through the Laboratory and cooperative manufacturing establishments, experiments in kiln drying green willow bolts are well under way.

Soapweed Perks Up

A peculiar situation has arisen in the Southwest in connection with the use of soapweed, which the scientists for some reason like to call yucca elata, once a despised member of the family of range plants. Experiments by the Service have proved the value of yucca as an emergency forage plant, and machines have been developed which cut and slice it before it is fed to the cattle. During the past year, when there was acute shortage of feed in southern New Mexico and western Texas, thousands of cattle were saved from starvation by sliced soapweed.

A large cordage and sacking concern in St. Louis, however, has begun to cut this plant on the open ranges, with the object of utilizing the leafy, palm-like tops for the manufacture of rope and bagging. The heavy stalks, containing the best part of the food, are left to lie on the ground and go to waste. Reports have it that the concern is clearing off the land at the rate of six or seven hundred acres a day.

Since indications are that it will take anywhere from six to ten years to reproduce another crop of soapweed mature enough for profitable cutting, the stockmen in the Southwest regard the operations of the St. Louis concern with a good deal of apprehension. All of which goes to show that soapweed is at last coming into its own.

Washington Office Notes

A. C. Waha has gone to Missoula on the double quick to assist Acting District Forester Rutledge in handling the fire situation in District 1. Mr. Waha has farther to go than had General Sheridan at Winchester, and it is a cause for satisfaction that he does not have to cover the distance on a horse.

P. S. Lovejoy, Professor of Forestry at the University of Michigan, blew into town a few days ago, and will shortly blow out again on a war survey of hickory and ash. Those who have read Prof. Lovejoy's interesting articles in the "Country Gentleman" and other magazines know him as the Irvin S. Cobb of forestry. He has both punch and humor - and, gosh! these are rare qualities.

Rolf Thelen spent several days last week at the Naval Aircraft Factory in Philadelphia and the Burgess plant at Marblehead, Massachusetts, studying

their methods of wood utilization. Mr. Thelen freely admits that airplanes are built to fly and that in compliance with this function they often leave the ground, but beyond this he refuses to disclose any secrets regarding the progress being made in the aircraft production program.

Franklin H. Smith is back from a two-weeks trip to New York and New England during which he rounded up delinquents in the Pulpwood Census.

S. T. Dana, together with representatives of the Signal Corps and the War Industries Board, is on a two-weeks trip to airplane and rifle factories to look into the utilization of walnut for propellers and gunstocks.

W. N. Sparhawk has returned to the office after an investigation of the available supplies of yellow poplar.

The Forest Service is to take a prominent part in the lawn fete to be held Friday evening, June 28, by the Department of Agriculture Welfare League on the grounds of the main Department building. Admission to the fete is the buying of one thrift stamp, which the purchaser may or may not be able to hang on to after he gets in. Ice cream will be served by Mrs. L. T. Conway and Miss Josephine Saunders.

District 1

About 17,000 acres along the Great Northern Railway between Columbia Falls and Belton, Montana, on the Flathead Forest will be covered by intensive classification. Scattered areas approximating 9,000 acres on the Blackfeet Forest will also be finished up this season.

J. W. Girard and C. L. Billings have just finished an extensive timber survey and appraisal trip on the West Gallatin Forest. They report that there is plenty of native timber available, but that indications are that no extensive operations on the Gallatin are practicable under present conditions of market, competition, labor, and costs.

District 2

Here is something new in the way of fire trespass settlement. Two small boys of Greeley, Colorado, 15 and 17 years old, respectively, apprehended by Supervisor Wheeler and a deputy sheriff near the scene of the Soldier Canon fire on the Colorado Forest, after admitting their responsibility, have agreed to obtain employment with the object of repaying the Service for the cost of suppressing the fire. The amount expended was $36.50, and the boys are to send in $5 at a time as earned.

Supplementary to the land classification work in District 2, now completed, forest officers will make careful observations of agricultural efforts within the Forests, not only on lands which have been restored under the Forest Homestead Act, but also on lands acquired under the agricultural land laws. A record will be made of claims of which no use is being made after entry, of clai on which the entryman has never settled, those which have been abandoned after settlement, and also those which are disposed of at the time or shortly after offering proof, and which are not used thereafter for agriculture.

Because of the hazardous fire situation on many of the Forests in the District, the Supervisors have been requested to submit fire reports to reach the Denver office on the 10th, 20th, and last day of each month throughout the season. Fires are reported burning on the Superior and Black Hills Forests.

Fred R. Johnson, Forest Examiner in charge of Planting in the District, and Miss Rosalie F. Shields, until recently connected with the Office of Grazing, were married in Denver on the afternoon of June 15. The Denver office extends best wishes.

R. F. Feagans, formerly law officer for District 2, has left for Chicago, where he has entered the legal department of Armour and Company.

Captain Richard T. Guthrie, formerly Forest Examiner in District 2, now of Battery E, 17th Field Artillery, which is brigaded with the French Army, was decorated on May 7, with the Croix de Guerre. Captain Guthrie resigned from the Service last spring before the United States declared war on Germany and joined the regular army.

District 3

Rainbow trout planted last year in Showlow Creek on the Sitgreaves are reported now to have reached the seven-inch size. Prospects are that next year even a better fish story may be expected from the catfish planted in Mormon Lake. We may even expect their numbers to be augmented by the addition of kittenfish.

Ranger Francis L. Kirby of the Crook on his return from Chicago, where he had been as witness in the recent I. W. W. trial, stopped off at the District office en route to the Pinal Ranger Station.

Six miles of telephone line are being constructed from the Canjilon Ranger Station to the town of Canjilon. Upon the completion it will tie in the Santa Fe and Carson Forests in their cooperative protection scheme.

Forest Examiner M. W. Talbot, who recently resigned to enter the military service, has been transferred to the Artillery. His present address is 1st Battery, 4th O.T.C., Camp Pike, Arkansas.

Total receipts for the District to June 1 have reached $655,277.73. The goal has been set at $700,000 which will probably be reached if all delinquent grazing fees are got in.

Government Hunter E. S. Steele of the Biological Survey reports few cats and coyotes remaining in the San Francisco Range country, and that the turkeys have increased materially in consequence. There appears to be no change in the number of deer over past seasons.

The Biological Survey is carrying out an experiment on the Grand Canyon Division of the Tusayan to determine the amount and class of forage consumed by prairie dogs. By fencing two plots "dog" proof and exterminating them from one of these plots while the other is left in its pristine vigor of dog infestation, it will be comparatively easy to check the depredations.

The seventeen mining claims at the Grand Canyon located by ex-Congressman H. Cameron have been recommended for cancellation by the Phoenix Land Office as a result of hearings held in 1915. These claims are in addition to those previously cancelled, and are located along the rim, at Indian Gardens, and on the Hermit Trail. The decision was delayed by injunction proceedings brought by Cameron in the Courts of the District of Columbia, but in which the Government was finally successful.

The light precipitation and prevailing high winds during May are responsible for the serious fire situation on practically all of our Forests. All lookout points are manned and the entire protective force is on duty. During May there were 47 Class A, 27 Class B, 15 Class C-1, 2 Class C-2, and 1 Class C-3 fires, which burned over an area of 4,932.44 acres. The area burned over since January 1 is 5,566.78 acres, and damage to Forest resources for this period $3,840.72. The amount expended from the fire fund since January 1 is $3,043.26, estimated outstanding liabilities $3,934.24.

District 4

Assistant to the Solicitor Lawson has returned from the Denver office, where he filled the vacancy caused by R. F. Feagans's resignation until Mr. Trowbridge, who succeeds Mr. Feagans, could come from Washington and take charge.

B. B. Richards of the Biological Survey, in charge of the rodent infestation work in Utah and Nevada, called at the office recently to inquire about range destroying rodents within the National Forests. Mr. Richards said that he would probably arrange to take up work along this line in the near future on the Ashley, Powell, and Sevier Forests.

After several false starts, we are about to begin planting on the Boundary Creek planting area on the Wasatch Forest and on the South Fork of the Provo River on the Uinta Forest.

Among the visitors at this office recently was Ranger Wetmore, formerly employed on the Tusayan Forest near Williams, Arizona. Upon terminating his work at Williams, Mr. Wetmore made a 900 mile horseback ride to Provo, passing through the Painted Desert. Conditions at Provo not suiting him, he accepted appointment

on the Boise Forest, and passed through here on another 300 mile horseback trip which, when ended, will make practically a continuous trip of 1,200 miles.

Eleven Forest Clerks in this District expect to be called in the Draft in the near future.

A petition has been presented to this office asking for the addition of some six sections to the south end of the Nebo Division of the Uinta National Forest. It is understood that a similar petition has also been presented to the Utah Delegation in Congress.

District 5

At a meeting of the Wood Fuel Committee of the Federal Fuel Administration in San Francisco on June 13, it was decided that it was not desirable or necessary to attempt at this time to regulate fuel prices in California or to take action looking to the reduction of freight rates on fuel. The public is being encouraged to lay in a winter's supply of fuel at the present time, and to burn wood instead of coal wherever possible. Particular attention is being called to the large available supply of slab and limb wood, practically unutilized in the past.

Forest Examiner Birch has just completed an examination of the Fandango logging unit in the Warner Mt. division of the Modoc National Forest. He has found approximately 300 million feet within the unit. Several tentative applications have been received, and it is expected that a single-band mill will be operating in this unit in the near future.

Arrangements were completed last week by which the Forest Supervisors of the State are to wire direct to the Associated Press in San Francisco or Los Angeles, at the expense of the Press, news of all fires which threaten to destroy food, foodstuffs, or war industries. On June 13 the Associated Press received wires from eight different Forests giving details about a sudden outbreak of lightning fires following a severe electrical storm. This was eminently satisfactory to the Associated Press, and the papers of the State played the news up for all it was worth.

Apropos of the following from the Inter-Mountain Review issue of June 10:

> " 'Hooverizing'
>
> A rather unusual method of 'Hooverizing' has been adopted by three members of the District office, who have entered into an agreement whereby, during the period of the war, they are not to purchase more than two cigars in any one day for their own use."

What do they do - purchase additional cigars for each other, or get their wives to do the buying?

The following message has just been received from Captain Kelley, Co. F, 10th Engineers: "Co. F. went over the top today, - 45,890 ft. b.m. in 9 hours 45 minutes, with a 20 M. mill; 129% over capacity."

The Standard Lumber Company, which owns several hundred thousand acres of timber land in and near the Stanislaus National Forest, has decided to accept Supervisor Ayres' offer of fire cooperation and will turn in their lands to the Forest Service for fire protection at the rate of 1½ cents per acre per year.

The Feather River Experiment Station located on the Plumas National Forest has been turned over to Dr. Meinecke, of the Bureau of Plant Industry, who will conduct an important series of pathological experiments there.

Conservation in southern California has received a new boost. The Yusi Fiber Company of Los Angeles has asked for a sale of yucca of the mountain variety in the Santa Barbara National Forest. The fiber of the leaves is used in connection with the manufacture of binder twine, insulating material, etc., and the balance of the leaves and head is to be used, according to the general manager of the company, for stock and dairy feed.

District 6

H. D. Tiemann, of the Forest Products Laboratory, is spending some time in Portland inspecting the operation of the new Tiemann Dry Kiln, which has just been completed by the United States Signal Corps at Vancouver. This kiln consists of twenty-four units, is 180 feet long, and has a daily capacity of 77,000 feet of airplane spruce or Douglas fir. Its operation requires the services of four technical men and six or seven assistants.

Women will occupy some of the "high" positions in the Forest Service in District 6 during the present fire season. They will "man" several of the lookout stations on the Siskiyou, Snoqualmie, Deschutes, Olympic and Wenatchee Forests. To offset the loneliness of the work, in some cases the women are planning to go in pairs and divide the salaries on a fifty-fifty basis.

A pontoon bridge, 115 feet long and 5 feet wide, has been placed across the Baker River just below Baker Lake, by a crew of men in charge of Ranger G. C. Birch, of the Washington Forest. The stringers lie on cedar logs cut in ten-foot lengths. About twenty feet in the center of the bridge is raised above the surface of the water sufficiently to let logs and driftwood pass through, and booms above the bridge guide the drift to this open place. During high water periods one end of the bridge will be cut loose and allowed to swing around on the cable against the bank, thus preventing its destruction. After the water subsides, the bridge will be drawn back across the stream. Besides its use by Forest officers, the Baker River Lumber Company, which cooperated in its construction, will use it to pack supplies to three shingle bolt camps.

Captain James Frankland, formerly of the District Office but now stationed at Fort Stevens, Oregon, visited this office June 17 to secure material for use in instructing his men in making topographic maps. Captain Frankland is now attached to the 69th Artillery.

T. T. Munger just returned from an inspection trip on the Olympic, during which he visited five spruce sales south of Quinault Lake. He also visited the timber survey camp on the upper Quinault, where all the timber survey work in the District is being concentrated this season. This region is now a scene of great activity. The busy spruce camp and railway extension camps are in marked contrast to the solitude and inactivity of the region at the time of Mr. Munger's last visit, three years ago.

George M. Hunt, of the Forest Products Laboratory, is spending the week in Portland visiting the various ship building plants.

At the request of Lieutenant-Colonel William Van Way, commanding officer at Vancouver Barracks, the District Forester has detailed W. B. Osborne, Jr., to deliver a series of lectures on forest fire detection and suppression before the officers attending the training camp at Vancouver Barracks. These officers are members of the spruce production division, and will be in charge of men working in the woods during the coming season. It is believed that by means of the information given in these lectures the officers will be prepared to furnish excellent cooperation in our fire protection work.

The forest fire season has opened up with an unusual period of dry weather. Fires have been reported in the Dosewallips Valley on the Olympic, the Cowlitz Valley on the Rainier, near La Pine on the Deschutes, near Pyramids on the Santiam. All are under control.

L. E. McDaniels has gone to Walla Walla to take charge of the Wenaha as Acting Forest Supervisor.

A party of Mazamas, led by Elijah Coalman, made the ascent of Mount Hood the last of May. On reaching the summit they found the lookout house buried in snow, but were able to gain entrance by digging the snow away from the cupola.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

July 1, 1918.

Captain Ringland Writes About the Gift Boxes

The following letter has been received by Mrs. Kiefer, mother of Capt. Francis Kiefer of the Tenth Engineers, from Capt. Arthur C. Ringland:

Yesterday the gift boxes arrived and by chance it was my good fortune to be present at the "opening event." We were simply overwhelmed with the many expressions of the generosity and thoughtfulness of you and the other ladies of the Forest Service. Indeed, when all of the packages were removed and put on the shelves preparatory to shipment to the various companies, the room might easily have been mistaken for the warehouse of the Q.M.

These gifts, I understand, were designed to reach the regiment for Christmas, but the fact that they arrived in mid-year is, I think, particularly fortunate. The men of the Tenth were unusually fortunate at Christmas time, if one may judge from the hundreds and hundreds of packages that were forwarded through here. Now no packages can be sent from home, so to receive gifts at this time is to make the men of the Tenth the envied of the other troops.

We cannot easily express in mere writing our appreciation of the painstaking work in the knitting of the hundreds of sweaters and socks nor the generous gifts of candy and tobacco. The fact, though, that the French marvel at the remarkable capacity of the American soldier for sweets and cigarettes is sufficient proof.

Did you know that the Tenth Engineers now sport a 37-piece band, and a very good one too, and for mascots we are supporting a few French orphans. That is quite the custom of the units in the A. E. F. We hope in time to have a family of 12 of these homeless boys and girls. That you may know what the French children think of the Americans, I enclose a paper that tells the story far better than any words of mine.

On behalf of Col. Woodruff and the officers and men of the Tenth Engineers please accept, my dear Mrs. Kiefer, our deep appreciation, and please tell the ladies who have so generously helped of our gratitude to them.

I am leaving the Tenth today for work elsewhere in the A. E. F., but I am glad that I had the opportunity to write in behalf of the regiment before going.

French School Children Write About the American Soldiers

Here are the extracts from the compositions written by French school children that Captain Ringland speaks about in his letter:

"They are all fine men, tall, large shoulders. I know one, a big fellow, he has a scar on his right cheek, which was made by a horsekick. He has a rosy face, long hair, carefully arranged. His feet are small for his size. He has a sweet tooth. He is gay. He is good. He eats chocolate, sweets, and apples. One day, when going on an errand near their camp, I met him sharing his chocolate with his comrades. Next Sunday I was playing at spinning top with my comrades. He was looking at us. My small brother had no spinning top. He gave him two cents to buy one.

The Americans are polite. When they shake hands, they bow down their heads a little. Before entering a house they take off their hats, and wait until they are told "Sit down." They have good discipline; no fault is left unpunished. They are more daring than we are; they do not fear expense."

JEAN LABERIOTE."

"There is one who comes almost every evening at home. He is a tall fellow with black hair, and flat nose. He is always laughing. He is very clean, very polite.

"The Americans are generally very clean and very polite. They also like sweets. They are always eating chocolates and sweets. There are some who like raw eggs mixed with chocolate and milk. They do not cut their bread as we do. They put it on the table and cut it as with a saw. Every morning they wash thoroughly. They wash their teeth after all meals. They have leather gloves to work.

"The Americans came to France not for their own interest but in order to help us. And so we have affection for them. They have at the front one million men who will inflict great casualties on the boches; meanwhile more yet come to join them by the sides of the English and French."

FRANCIS LOUPIEN."

"The one that I know is tall, well built. He is very amiable and kind to children. Whenever he meets one on the road he will stop his horses and take him along. He is a horse driver. When it is raining he does not care, he will then whistle with all his might.

ERNESTINE CABANNES."

"They like sweets very much. They are clean. They wash all their body with cold water. They are very polite. They do not have the same religion as we have, but it does not matter; they are free to practice the one they choose or none.

CAMILLE DUBOS."

"They are fighting at the front by the sides of our dear soldiers. They help to support the hardships of this war and take their share of them. Let us be very grateful to them.

ALICE DUPHIL."

"The American soldier has a great love for his family. He always speaks of his mother, or his father, brothers and sisters. There is one who comes to my house often. They are jealous among themselves. When one of them goes in a house to learn French, if one day he finds another fellow in that house, an American soldier, he will not come back any more.

MATHILDE LECOMMERES."

"I know one of them. He is an officer. He is very straight; he has a noble demeanor. The Americans are friends of progress, they are up to date. They use all the machines newly created.

JEAN LAGEFUN."

"The work of the Americans is certainly a curious one. I saw them raise huge logs with large pliers, as easily as they would have moved a straw. Their furnaces for their kitchens are half in the ground, in order not to waste the heat. What struck me especially about the American soldiers is their cleanliness. All of them are tall, healthy and strong, owing to their hygiene. Their teeth are very white, and not to soil their hands they put on gloves even at work.

"Another thing I admired also is their politeness. France has the fame of being the most polite nation in the world. We have often heard and read about the French courtesy. Is France going to lose her rank among the well-bred nations?

"I like the American soldiers who came to help France. I like the Americans who came here to defend justice and right. I admire the Americans who remembered France, who came to her in spite of the many dangers. 'LONG LIVE THE UNITED STATES OF AMERICA.'

RENEE BOURTHE."

The Fire Situation in District 1

According to Acting District Forester Rutledge, the fire situation in District 1 is practically unchanged. Showers in the early part of last week helped matters a little, but the effects of the rains soon disappeared, and the situation became serious again. The weather is hot, dry, and windy. A number of fires are burning, but most of them are under control. No new fires have been reported in the last few days.

Boy Scouts Getting Results in Black Walnut Census

Questionnaires supplied to the Boy Scout leaders for taking the black walnut census are being returned to the Service at the rate of from 30 to 40 a day. Amounts reported by the Scouts vary from 1,000 to 165,000 feet. The work of the Scouts, it would seem, is going to uncover a large amount of walnut timber that possibly would not have been found otherwise.

A Possible Use for Treenail Waste

The Service has been asked by the Ordnance Corps to revise specifications for intrenching pick and shovel handles, so that it will be possible to use some woods other than hickory, which is becoming very scarce. Locust will probably be one of the woods tested as a substitute. A great amount of waste, from 12 to 22 inches in length, has accumulated at plants producing locust treenails for the emergency fleet. It is possible that this may be used for handles.

District Organization for the War Woods Survey Work

In connection with the survey of standing timber especially needed for war purposes, the main hardwood producing region of the United States has been divided into five districts, each of which will be in charge of a member of the Service for the period of the war. These districts are the Northeastern, comprising New England, New York, Pennsylvania, and New Jersey; the Southeastern, comprising Maryland, Delaware, Virginia, North Carolina, South Carolina, and Georgia; the Lake States, comprising Minnesota, Wisconsin, and Michigan; the Central States, comprising West Virginia, Ohio, Indiana, Illinois, Kentucky, Tennessee, and Alabama; and the Middle Western, comprising Iowa, Nebraska, Kansas, Missouri, Oklahoma, Arkansas, Texas, Louisiana, and Mississippi.

Kenneth McR. Clark will be in charge of the Northeastern District; E. M. Munns, of the Southeastern; E. H. Frothingham, of the Lake States; F. S. Baker, of the Central; and R. F. Hemingway, of the Middle West. Russell Watson will assist Mr. Baker in the Central District. The object of the District men will be to keep up-to-date on the supplies and production of black walnut, ash, yellow poplar, oak, and other valuable species.

Good News from the Purchase Areas

H. O. Stabler, who is back from a two-weeks' trip to the Shenandoah, Potomac, and Massanutten Purchase Areas, has something of interest to tell about developments in these new members of the National Forest family. The Shenandoah, says Mr. Stabler, is very much on the map now in the matter of timber sales and will go over the top this fiscal year with total receipts amounting to approximately $18,000. This establishes a record in Purchase-Area receipts. Sales are also under way on the Potomac and a few small sales have been made on the Massanutten.

Several years ago the members of the National Forest Reservation Commission climbed to the top of North Mountain in the Potomac Area in order to glimpse the effects of the repeated fires that had run over the surrounding region. The landscape that they viewed, says Mr. Stabler, was simply chock full of discouragement, so much so in fact that one Senator remarked that the land was not worth fifty cents per acre and would never produce any merchantable timber. That was three or four years ago, and since then, under Forest Service fire protection, a

most noticeable improvement has taken place. Already there is a dense and thrifty growth of chestnut, chestnut oak, black oak, white oak, and coppice of other hardwood species. In spite of the Senator's pessimism, we can now look forward to a future timber crop.

The fire situation on the Purchase Areas generally, Mr. Stabler goes on to say, is if anything subnormal. The Southern Appalachians are free from the all-destructive fires that threaten the National Forests in the West, but the ground fires that occur in the southern mountains burn very rapidly and cover relatively large areas in a short time, so that, here as elsewhere, there is need for a protective system that will ensure the fire being fought as soon as possible after it starts. Sentiment in the South in favor of fire protection is growing stronger all the time.

Washington Office Notes

E. E. Carter left last Saturday for the headquarters of the Superior Forest to confer with District 2 officials regarding some prospective timber sales there. After that he will go to Districts 6 and 2 for a little timber sale inspection. We won't see him again in these parts for a matter of two months.

Austin Cary is back at the office after several months spent in the South looking after cooperation with private timberland owners.

The members of the Washington Office did themselves proud in the way of purchasing war savings stamps on Friday, June 28, the last day of the big drive. Claude M. Ballard had an artistic booth erected in the hallway of the fifth floor, the sides, back, and top formed of American flags, where Miss Margaret Blaine dispensed thrift and war savings stamps until her arms ached. All told, $880.23 worth of stamps were sold in the course of the day.

L. C. Everard will cease to be an American long enough to take part in the Serbian Kolo Dance, which will be one of the episodes in the great Fourth of July patriotic pageant. The dance is to take place on the grounds of the Department of Agriculture, and the flag of the Jugo-Slavic revolution in Austria is to be unfurled on this occasion for the first time in history.

Mrs. N.W. Brenizer, who left the Service some six months ago to serve as artist at the National Headquarters of the American Red Cross, returned to her work in the Service on July 1.

J. Girvin Peters and C. A. Lindstrom, who volunteered some time ago to help local farmers get in their crops, spent last Friday afternoon among the agriculturists of Montgomery County making good their pledge. They were paid two-fifty a day and board, which they turned over (the money, not the board) in part to the Red Cross and in part to the Farmers' Help Fund.

R. K. Helphenstine has been visiting the Aviation General Supply Depot, Richmond, Va., and the Naval Aircraft Factory, Philadelphia, on an inspection of test airplane lumber shipped from the Government cut-up plant in Oregon.

George N. Lamb has resigned from the Service to become Secretary of the Walnut Manufacturers' Association. His headquarters will be in Washington. Call on us often, George.

E. D. Fletcher is back from a trip south, where he gathered information about the popular poplar - the yellow kind.

Paul D. Kelleter, who went out to Deadwood, S. D., last week to appear as defendant in a $20,000 damage suit resulting from the sale of timber from certain mining locations in the Black Hills Forest, writes that the suit has been dropped. Action was brought against Mr. Kelleter personally because of the desire of the plaintiff to keep the case in the State courts.

The Borland Amendment to the Legislative and Judicial Appropriation Bill, requiring a minimum work day of 8 hours for all Government employees, was vetoed by the President on July 1. The amendment was finally disposed of the same afternoon when the House, which had voted for the plan originally, refused to override the President's veto, 246 to 50.

Forest Products Laboratory

As evidence of how the war is causing the work of the Laboratory to expand, and also as an indication of the turn-over these days in the Laboratory force, it may be mentioned that the appointments at the Laboratory in the month of May numbered 46 and the resignations 11. In addition, two men were furloughed for military duty, one was dismissed, and one was lost through death.

As a result of experiments carried on at Madison and demonstrated at Dayton, Ohio, the Laboratory has developed a metal coating for airplane propellers that promises to meet requirements. Specifications prepared at the Laboratory have been approved by the Signal Corps.

The Laboratory is preparing an application for a patent on a method of making thin veneer for fuselage or wing covering. The Laboratory has also applied for patents on several kinds of veneer glues which experiments have shown to be of special value.

Experiments with auracaria from Argentine, South America, indicate that this wood, which is readily reduced by either the soda or sulphate process, is suitable for the manufacture of wrapping paper and high grade test board.

Some promising results have been obtained in experiments looking to the substitution of wood pulp for cotton in surgical dressings.

As a minor but none the less interesting feature of its war work, the Laboratory is making tests to determine the best kinds of paper and glue for use in labelling boxes for overseas shipment.

District 2

The severe drought which for several weeks has been threatening the Forests, ranges, and other agricultural pursuits in south central and southwestern Colorado were partially relieved by heavy rains during the week in the Arkansas and San Luis valleys. Light rains also fell in the Uncompahgre and Montezuma country but more is needed. In many places new grass had not started and live stock were subsisting on old feed. Where heavy rains have fallen in the San Luis valley the condition of the lower ranges has been helped materially. The higher ranges usually get local showers and have not been effected by the drought.

The recent loss of some 400 sheep in one band near Hotchkiss, Colorado, was the occasion for a field inspection trip by Dr. C. D. Marsh, in charge of the Agricultural Experiment Station at Salina, Utah, accompanied by Supervisor Kreutzer of the Gunnison Forest. The loss at first ascribed to Death Camas, after investigation is thought to have been caused by milkweed. Dr. Marsh has taken several sacks of this weed to Salina for experimental use.

District 3

Dourine, a highly contagious horse disease, has made its appearance in the eastern half of the Sitgreaves National Forest and in the northwestern portion of the Arapaho Forest. In May 1917, the State of Arizona, the local stock growers' association, the Bureau of Animal Industry, and the Forest Service cooperated in the round-up of all the horses on the affected area. So many of the horses were absolutely wild, however, that it was not possible at that time to round-up all of them, and the work will have to be done again this year. In the new round-up it is hoped to capture the greater number of horses in the area affected. Those caught in the general round-up will probably have to be hunted down singly and killed on the open range.

Ranger Wetherford, of the Datil, had his shoulder broken while returning from a fire June 21. His horse stepped into a hole and threw him.

District 4

Mr. E. P. Ellison, a large sheep permittee on the Humboldt Forest, called at the office recently and reported a very severe drought through northern Nevada, and a consequent serious shortage of water for irrigation purposes.

The situation is such that Mr. Ellison considered it doubtful whether the ranching company of which he is a member would put up any hay whatever on their large ranches in the vicinity of Winnemucca.

Forest Clerk H. C. Haglund of the Idaho Forest has been called to military service and has gone to his home in San Jose, California, for a short visit before entering Camp Kearney for training.

During the past week local rainstorms have reached as far north in Idaho as the Minidoka Forest. We hope that rain has been general all over the Idaho Forests, since it will do much to relieve the fire situation in that State.

Deputy Forest Supervisor Spencer of the Cache Forest, who planned to enter military service, failed to pass the final physical examination, and has returned to his work on the Cache.

Classification work, both extensive and intensive, is now finished for this District. The last classification report has been forwarded to the Forester. Owing to the extremely limited amount of possible agricultural lands on the Kaibab, Ashley, Wyoming, Salmon, Wasatch, Payette, Nevada, Targhee, and Sawtooth National Forests, the District office was in this case able to complete the classification through an extensive report alone. For the remainder of the Forests both extensive and intensive reports were submitted.

District 5

"On June 16, A. B. Rogers of 2722 Eagle Street, Los Angeles, left an unextinguished camp fire in San Gabriel Canyon. Cooperative patrolman Dalton filed a complaint against him, and on June 17 he appeared before Judge Bouldin of Azusa, plead guilty and was sentenced to fifty days in the County jail. This makes the fifth so far, and we have another pending. That arson squad work has certainly stirred things up down here."

R. H. CHARLTON.

District Engineer F. H. Fowler has just returned from inspection of road projects now being surveyed or actually constructed on the watersheds of the Klamath, Salmon, and Trinity rivers in Siskiyou and Humboldt counties. A large party is now engaged in surveying the Klamath River road, while a section of the Salmon River road, 5-4/10 miles in length, has already been constructed. Work on this project for the present season will probably be confined to the construction of a bridge across the Salmon River near the mouth of Nordheimer Creek. A construction crew of approximately 50 men, with the necessary equipment, is now working on a five mile section of the Trinity River road between Gray's Ranch and Burnt Ranch.

The County librarians of the State and owners and managers of all laundries have been enlisted as active agents in the fire prevention movement for California. Fire prevention propaganda, in the form of short paragraphs, is now being furnished to every County librarian in the State and also to all laundrymen. The people of California will have no opportunity to forget the necessity for fire prevention during the coming summer. Nine hundred thousand propaganda paragraphs will soon have been distributed from the District Office.

District 6

The Portland Council of the Boy Scouts of America will maintain a summer camp for the scouts at Wahtum Lake on the Oregon National Forest. One hundred scouts will be taken care of at a time. Plans have been made for a building, and W. L. Langille, formerly Forest Supervisor in Alaska, is in charge of construction work. The Lake may be reached by way of Eagle Creek trail from the Eagle Creek camp grounds on the Columbia River Highway, and also by the Herman Creek trail which leaves the Highway 2½ miles east of Cascade Locks.

Forest Assistant H. L. Plumb of the District Office, has been furloughed for military duty and was one of the 569 men who left Portland June 25 for training at Camp Lewis, Wash.

Sixty-one members of the Mazama party who made a week end outing at Government Camp June 22 and 23, successfully reached the summit of Mt. Hood. A number of soldiers from Vancouver accompanied the Mazamas as their guests on this trip. Misses Vertz and Youngcrantz and Mr. H. L. Plumb of the District Office were among those who climbed the mountain.

Two large fires are now burning in the district. One on Rainier threatens to run over the whole of the old Cispus burn unless prevented by rain. Fifty soldiers and twenty-five other men are fighting this fire. A fire east of Crater Lake has already burned over 6,000 acres, 2,000 of which are inside of the Crater National Forest.

On June 14, Senator Chamberlain introduced a bill providing for the addition of 2,886 acres to the Minam Forest. On the same day Senator McNary introduced a bill providing for the addition of a small area in Columbia Gorge Park region to the Oregon Forest.

On June 22 and 23 a small party of members of the Trails Club of Oregon visited Wahtum Lake, going in by way of Eagle Creek trail and coming out over the Herman Creek trail. Mrs. Whiting and Misses Palm, Wheeler, and Zeigler of the Portland office were members of this party.

Twenty-five thousand rainbow trout from the State Hatchery at Bonneville, Oregon, were recently placed in Eagle Creek near the camp grounds.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

July 8, 1918.

Timber Resources of the British Isles

An erroneous idea as to the British timber resources seemed to prevail before the war, according to a London trade paper. It seemed to be the opinion that the coal mines were dependent on supplies of pitwood from overseas and that in the absence of their importation further operations would be impossible.

Although the country has been at war for four years no shutting down has occurred. In 1917 approximately 995,000 loads of mining timbers were imported, as against an importation of 2,477,000 loads in 1914. This difference was offset by the production of a trifle less than 2,000,000 tons from the British forests.

According to the trade paper recent timber surveys indicate that there is sufficient timber available to meet the demand for some years to come.

Sawn wood is now being produced at the rate of 500,000 standards per annum. It is also stated that there are good resources of softwood and enormous quantities of ash, elm, beech, chestnut, etc.

Additional Public Lands Designated

During the month of May over 3,000,000 acres of land were classified for entry under the 640-acre act. Of this land, 985,000 acres are in Colorado, 370,000 in New Mexico, 475,000 in South Dakota, and 1,265,000 in Wyoming. This makes a total of more than 6,000,000 acres that have so far been designated for entry under this act.

Also during the month nearly 1,000,000 acres of land were designated for entry under the enlarged homestead act under which entrymen may take up 320-acre tracts. These lands are located in Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming.

Twenty-two thousand acres in Montana and 2,400 acres in Washington were restored from coal withdrawals.

New Forest Service Publications

The following publications by members of the Forest Service have just come off the press: "Range Preservation and Its Relation to Erosion Control on Western Grazing Lands," by Arthur W. Sampson and Leon H. Weyl (Bulletin 675, Dept. of Agriculture); "Tests of the Absorption and Penetration of Coal Tar and Creosote in Longleaf Pine," by Clyde H. Teesdale and J. D. MacLean (Bulletin 607, Dept. of Agriculture); and a special circular by Dr. Frank A. Waugh entitled "Landscape Engineering on the National Forests."

War Brevities

A walnut tree on the College Campus at Crawfordsville, Indiana, was recently sold for $650 to the W. T. Thompson Veneer Company. The tree will be manufactured into airplane stock and veneers for the piano trade.

A Douglas fir flagpole 300 feet high has been erected at Camp Lewis. This smashes the record of a 215-foot Douglas fir flagpole of the Kew Botanical Garden in England, which for years was credited with having the tallest flagpole.

Cub bears are in great demand by the various units of the army in the Northwest as mascots and the Forest rangers of District 1 have been called on to supply the demand.

A tree as service flag for each man who has gone to the war is the plan of the citizens of East St. Louis, Ill. Plans are now being made by the Woman's Civic Federation and the Woman's Committee of the Council of Defense to plant these trees near the homes of the enlisted men, each to bear a marker with the name of the man thus represented.

Standardization of railroad ties has been made. Hereafter but five standard sizes of ties will be purchased. The prices to be paid for the various sizes and species throughout the country have been determined and official announcement is expected daily. The new sizes are:

No. 1	6 x 6 inches	- 8 feet
" 2	6 x 7 "	- 8 "
" 3	6 x 8 " or 7 x 7 "	- 8 "
" 4	7 x 8 "	- 8 "
" 5	7 x 9 "	- 8 "

Advertising space worth about 50 million dollars has been donated to the government by the newspapers and magazines of the United States, for the purpose of advertising the needs of the government in handling the various war problems. A certain amount of this space has been turned over to the Department of Agriculture, of which some will be made available for the Forest Service.

Forty-five carloads of 12,000 sheep from Idaho have reached Michigan and are now grazing in parts of Marquette and Dickinson counties. Upper Michigan has for the past six months been actively occupied with a campaign for "More sheep, more wool!"

Washington Notes

Senator King has introduced a bill providing that the Offices of the Commissioner of Indian Affairs and the National Park Service, the Commissioner of the Land Office, the Geological Survey, the Bureau of Mines and the Reclamation Service shall be transferred to branch offices west of the Mississippi River, at places to be designated by the President.

The water power bill which has been under rather prolonged consideration by the House Committee has at last been reported out to the House. In addition to the majority report filed by Mr. Sims, a minority report was submitted by Mr. Ferris in which he attacks the provision recommended by the majority whereby the government, state, or municipal authorities would be required to pay the "net investment" in power projects at the expiration of license periods; if the government or the municipalities desired to take them over. Payment by the government of "fair value" is proposed by Mr. Ferris. The Water Power bill has already been passed by the Senate so that the next action will be consideration by conferees from both Houses.

J. A. Mitchell is back in town from a prolonged trip in connection with cooperative fire plans in Virginia, Maryland, and Kentucky. He has promised to tell us more about his trip later.

It's now Captain H. N. Knowlton in the Ordnance Department, a promotion from First Lieutenant. Since leaving the Forest Service, Captain Knowlton has been tolerably busy as boxing expert for the War Department, he being mainly responsible for the specifications on which the present manufacture of boxes is based. Captain Knowlton will continue to make Washington his headquarters for the present at least.

Senator Shafroth of Colorado recently introduced a bill to eliminate the northern portion of the Pike Forest situated in Gilpin, Boulder, and Clear Creek counties, this being in response to a petition that had been circulated locally and forwarded to him for action. The entire area involves about 100,000 acres of which, however, more than 50,000 acres are patented and in private ownership.

The disagreement of the Senate and House conferees as to whether it is to be $2.50 or $2.20 wheat still continues and as a result the Agricultural Appropriation Bill is still pending. Continuing resolutions have made the necessary money available pending the final enactment of the law for the fiscal year 1919.

W. D. Sterrett, who has been absent from the office because of sickness, has returned and will undertake to work up data on the stands of oak, ash, hickory, cypress, maple, beech, birch, basswood, elm, and cherry, and to estimate the percentage of different grades of lumber that can be cut from this standing timber. He will be assisted in this by the men who have been assigned to the eastern districts for the period of the war.

E. D. Fletcher has returned from a field trip in the Southern Appalachians, Kentucky, and Tennessee, where he has been collecting information upon the stands and production of yellow poplar.

District 1

W. M. Nagel, of the Office of Planting, has enlisted with the 472nd Engineers now at Jefferson Barracks, St. Louis, Mo. It is a replacement regiment and concerns itself with topographic and military mapping.

A total of 864 acres were covered by the planting work at St. Maries and 764,000 seedlings set out.

District 2

Twenty-five hundred yearling steers have just been shipped into the Black Hills National Forest from drouth-stricken Arizona. The shipment represents the selects from several thousand head, those left behind being too weak to ship. Most of the cattle shipped have never been caught out in a rainstorm.

It required fifty-four cars to make the shipments. The range allotted has heretofore not been used to the fullest extent. The permittees will cooperate with the Forest Service in constructing several short drift fences at the heads of the canyon and will assist in improving the watering places.

It is the present intention to feed the entire bunch next winter and then after a second season on the range ship direct to the market.

C. V. Cooke, Forest Ranger on the Black Hills, has been called by the draft and is now on military leave from the Forest Service.

Dr. Marsh of the Utah Experiment Station reports that he succeeded in killing sheep with the specimens of the milkweed gathered by him at Hotchkiss at his recent investigation into the loss of sheep at this point. Additional reports received indicate a possibly serious situation and the Colorado Experiment Station has a preliminary bulletin of warning in press.

There are 37 alien grazing permittees in the District as follows: Germans, 2; Austrians, 1; Swedish, 2; Swiss, 2; Chinese, 1; Greeks, 3; English, 2; Scotch, 3; Italians, 17; unknown, 4. These alien permits cover 1,434 cattle and horses, and 9,900 sheep. In addition to the above, two Germans have applied for a special use permit to conduct a fur farm on the White River Forest.

Judgment to the amount of $4,735.08 plus interest and costs has been secured in the U. S. District Court at Cheyenne against the Carbon Timber Company for timber trespass committed on the Hayden Forest between 1902 and 1907. The court declared the judgment to be a preferred claim and ordered the trustees of the now insolvent company to make payment ahead of all other claims except that of the American Security Company of New York. The judgment was paid in full to the clerk of the court on or about June 25.

The exclusiveness of the Black Hills National Forest is a thing of the past. In order to make possible the fullest use of range on private land not well suited for cattle and hitherto going to waste authorization has been made for grazing sheep on the adjoining Forest land.

Memory of man hardly runs back far enough to the time that efforts have not been made to get sheep on the Forest. Some efforts were costly to the owners, consisting in several instances in paying various sums in settlement of alleged innocent trespasses and in the first one in facing indictment

by the Federal Grand Jury. The last experience was the most effective in ending such efforts in spite of the decisions of the Forest Service. Since the latter experience the sheepmen have resorted to more diplomatic efforts.

The amount of Forest range made available is small, but to the sheepmen it is considered a good omen and no doubt they are living in hope that additional range will be made available for them. The Wyoming sheepmen in the vicinity of Newcastle are especially interested as they have about 50,000 sheep for which they need range since that formerly used by them is being taken up under the 640-acre law.

In the recent War Savings Stamps campaign, pledges were secured from 44 members of the District Office, totaling $3,020, or an average of $68.63 per pledge. It is expected that the above total will be increased as soon as pledges are received from members who were absent from the Office during the drive.

Small lumber mill operators in southern Minnesota have been called on by W. T. Cox, State Forester, to help Uncle Sam. Even those sawing but 2,000 feet daily are needed. "The Government needs a great variety of lumber and lumber products," says Mr. Cox, "much of which is obtainable only at the small mills." Request has been made of Mr. Cox to secure all possible data from small mills as to the amount of their output and whether this could be increased.

George E. Trowbridge, Assistant to the Solicitor, is back in Denver from a strenuous trip to the Black Hills in connection with the $20,000 damage suit brought by the owner of mining claims on account of the removal of the timber by the Forest Service under timber sale regulations. The plaintiff lost courage and asked for the dismissal of the suit, not, however, until after the Forest officials, headed by the U. S. Attorney and the Assistant to the Solicitor had made personal field examination of the timberlands involved. This constituted the most strenuous episode of the entire trip made by Mr. Trowbridge.

District 3

The total net receipts for the fiscal year 1918 for the Southwestern District are $706,639.86. A material increase in receipts of practically all activities excepting from water power and fire trespass is to be recorded. Timber produced a net revenue of $276,979.07, or $40,060.77 more than last year. The net income from grazing was $395,603.94, or an increase of $53,114.65 over the preceding year. This District stands first with $278,656.33 net receipts for cattle and horse grazing. Special use netted $32,257.51, grazing trespass $15,502.05, water power $859.83, timber settlement $608.95, timber trespass $311.56, and fire trespass $19.00.

The total for this year is the highwater mark of income for any District since the establishment of the National Forests. This result has been attained with the lowest per acre cost for any District, and during a year when the contribution of District 3 to military service of 73 men represents 26 per cent of its total field force. In spite of these losses of personnel, the timber sale work is in a higher grade of efficiency than ever before, grazing is being handled vigorously, a great arrears of trespass is being cleaned up, and a bad fire situation has been kept under successful control.

Chester Lee, with the Tenth Engineers hailing from Albuquerque, has been promoted to second lieutenant.

Ranger Carrejo, who was wounded while assisting in the arrest of the Coopers, has been back on the job for several weeks now. The Cooper cattle-stealing case will come up before the next Grand Jury.

That the kangaroo rats and other nocturnal rodents of the desert play an interesting and important part in relation to the quantity and variety of the range is being brought to light as a result of the cooperative experiments just commenced on the Santa Rita Range Reserve. These experiments are being carried on by the Desert Laboratory of the Carnegie Institute, the Biological Survey, and the Forest Service.

Two photograph albums showing the activities and industries on the Forests of the Southwest will be made available for use of visitors to the Hopi Lookout Station.

Lookout Man Grounds feels like living up to his name since his recent experience with lightning on the San Antone Lookout. The cabin was struck by a bolt which tore a hole in the roof. The excitement occurred during the night and Grounds' escape from injury is probably due to his being in bed. Although it is claimed that lightning does not repeat, nevertheless the cabin is to be protected by the erection of a lightning-rod.

W. D. Smith, former ranger on the Sitgreaves, has been appointed Deputy Forest Supervisor on the Apache Indian Reservation with headquarters at Cluff Cienega. This is the place formerly occupied by George M. Nyce now in the army. Mr. Nyce is also an ex-ranger from the Sitgreaves.

District 5

The Secretary of Agriculture of Mexico, accompanied by a number of other Mexican officials were recently the guests of the San Diego Chamber of Commerce. The party made a tour of the immediate region to get first hand information of its agricultural development and were particularly interested in orchards, irrigation systems, poultry ranches, packing houses, etc. According to the visitors a determined effort is to be made to build up their own country along these lines. Forest Supervisor Tillotson assisted in the entertainment and instruction of the visitors.

Soldiers under the command of Major Hall recently gave Ranger Boulden a hand in transporting a pile of lumber and other supplies from Cherry Flat to Cuyamaca Peak. About 100 men participated in the trip and it was possible to take all of the impedimenta on one trip.

Life is being made a sweet burden for Ranger Johnson of the Laguna Recreation Area, according to reports, through the imposition on him of picnic lunches, cigars, fruits, homemade cakes, jellies, etc. It would seem an advisable policy to let other batching rangers in on this by starting a system of rotation in assignments to the Recreation Area.

District 6

Carl N. Miller, formerly of the Office of Lands in the District Office, has entered the Fourth Officers' Training Camp at Camp Lewis, Washington.

A sale of 6,600 cords of dead and down western red cedar timber suitable for shingle bolts has been awarded the Mountain Mill Company of Ashford, Washington. The price paid is $1.20 per cord.

Payment of $4,130 has been made by the Sound Paper Company on their preliminary permit for power development on the Sultan River, within the Snoqualmie Forest.

Eleven community stock associations have been organized on the Malheur Forest during the present year, making a total of twelve now cooperating with the Forest officers. The John Day Association is taking steps to sell all bulls now owned by individual members and then to replace them by the purchase of pure-bred bulls next fall. These steps are part of the program of the association to improve the stock.

Salt is also being purchased in bulk and distribution is being made in accordance with plans worked out by the Forest officers.

The Burns and Silvies associations intend to build a long drift fence along the south boundary of the Forest to keep the stock off the Forest until the opening of the grazing season and to prevent their drifting to the low ranges after having been placed on the range in the Forest.

District 7

Cordwood is to be cut by the War Department on the Pisgah National Forest, at the rate of 500 cords per day. A labor battalion of 1,200 negro soldiers is now camped in the Forest and ready for work which will be begun as soon as the officers in charge get their bearings and also the proper equipment with which to do the work. Shipment of the wood will be over the Car Lumber Company's railroad, which at present is used to its capacity in transporting tanning material for the War Industries Board.

Dist. 8

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

July 15, 1918.

The Forest Service and the Draft

Recently a statement has been made to the Secretary of Agriculture as to the effect of the draft on the personnel of the Forest Service. It will doubtless be of interest to many of those who remain in the Forest Service as well as to those who are now in the military service, to know what the results have been. For that reason the following figures are presented.

The total number of men of draft age who were in the Forest Service on June 5, 1917, or who have since that date entered the Service is 659. Of the above number, requests for deferred classification were authorized by the Secretary and made for 331. Of this number 44 have since left the Service. While the records do not show the reasons for the resignations of these 44 men, it is believed that most of them resigned in order to enter the military service.

This leaves now in the Forest Service 287 for whom deferred classification was requested. The actual classification of these men by the local and district boards is as follows:

Class I	Class II	Class III	Class IV	Class V	Unknown
8	2	126	145	3	3

It will be seen that more than half of these men were placed in Classes IV and V for reasons independent of the Secretary's request and that only 126 were actually placed in Class III. Of these 17 were placed in divisions of Class III other than III-I, so that only 109 were given III-I classification as a result of the Secretary's request. Of the 109, 28 have also other deferred classification, leaving only 81 held alone by the official request.

Had these 81 men been placed in Class I, as would have been likely without the request for deferred classification, the action would have had serious consequences in the work of the Forest Service. Yet after all the net result of the requests for deferred classification is perhaps less than was generally expected.

For 328 men of draft age no request for deferred classification was made. The following shows the classes in which these men were placed:

Class I	Class II	Class III	Class IV	Class V	Unknown
80	11	20	171	31	15

In this group, too, it will be noted that considerably more than half were placed in Classes IV and V, while as would be expected a considerable percentage was placed in Class I. It will be noted that 20 were placed in Class III. However, in only four of these cases were men placed in Class III-I, the other 16 are in other divisions of Class III.

The following table shows the status of draft cases of the several Districts and the Madison Laboratory as of July 10, 1918 (not including registrants of 1918):

	D-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8	Lab.	Total
Total number.....	86	114	60	116	35	66	33	30	75	615
III-I classification requested.	50	66	22	43	16	26	16	5	43*	287

*Of this number 3 cases have not been acted upon as yet.

	D-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8	Lab.	Total
III-I classification granted..	20	34	7	12	5	13	4	3	11	109
III-I classification requested but not granted..	30	32	15	31	11	13	12	2	29	178
Deferred classification not requested...	36	48	38	73	19	40	17	25	32	328

WM. L. HALL.

Black Walnut Production Increasing

The production of walnut for gunstocks is on the increase. From present appearances there is no question but that before the end of the summer the production will come much closer to meeting Government requirements.

Captain Oakley of the Small Arms Section, Production Division, Ordnance Department; J. C. Wickliffe of the Hardwood Section, Materials Department, Bureau of Aircraft Production, and the writer visited the majority of the mills producing black walnut for gunstocks and airplane propellers.

The supply of walnut logs at the mills has increased greatly during the past two months and nearly all of them now have a reserve supply sufficient to carry them through several months. The increased log production has apparently been due in large part to increased activity on the part of the buying organizations of the mills, to the assistance rendered by the Forest Service and Ordnance Department representatives, and to the publicity given the Government's need for walnut through newspaper items, the Boy Scout canvass, and similar means. The assistance already given by the Ordnance Department in helping the various mills to purchase logs from owners who are reluctant to sell is now being increased by the assignment of additional commissioned officers for this purpose. It is planned by the Ordnance Department to have at least one officer for each two walnut concerns having Government contracts for gunstocks.

Apparently the chief means by which walnut production can be still further stimulated are by opening up new regions, improving the present utilization of the logs for war purposes, increasing the capacity of the walnut mills, and running night shifts. Scarcity of labor and difficulty in keeping men on the job have crippled the plants to some extent, but not yet sufficiently to seriously curtail production. This situation will also be relieved to some extent by the readiness of the Ordnance Department and the Signal Corps to secure furloughs for drafted men whom the manufacturers certify are essential for the proper conduct of the business.

The Forest Service is continuing its efforts to stimulate production in cooperation with the Ordnance Department and the Signal Corps. W. D. Brush is covering the field in Ohio and West Virginia; F. S. Baker, in Indiana and Illinois; Russell Watson, in Kentucky and Tennessee; and Frederick Dunlap, in the States west of the Mississippi River, particularly Arkansas, Oklahoma, and Texas. These men are now mainly looking up new sources of supply, assisting the various mills to practice the most efficient methods of utilization, making certain that air plane walnut is not put into veneers, and securing cooperation of county agents, State foresters, and other local agencies in stimulating walnut production. Altogether the situation is now much better than it was several months ago when the work was first undertaken, and it is hoped that through cooperation of the Government Departments interested it may be possible to increase production sufficiently to meet the Government's war needs.

S. T. DANA.

President Vetoes Agricultural Appropriation Bill

President Wilson has vetoed the Agricultural Bill. This action was taken on account of the inclusion of the item placing the price of wheat at $2.40, a compromise price reached by Congress after a protracted struggle. Probably an effort will be made to pass the bill over the President's veto. Failing in this there is reason to believe that a new bill will be submitted omitting the objectionable item.

National Forest Receipts

Receipts from the National Forests for the fiscal year 1918 just ended again show an increase over previous years. In 1918 the receipts amounted to $3,574,930.07, as against $3,457,028.41 for 1917, making an increase of $117,901.66.

The gain in receipts made during a portion of the year was not maintained during May and June, and as a result the hoped-for goal of a $250,000 increase was not reached.

The banner increase to date was for the fiscal year 1917, when the total receipts showed an increase of $653,487.70.

Decreases in the Districts were as follows:

District	1	$143,820.33
"	5	1,045.22
"	6	2,475.88

Alien Grazing Permittees

Grazing permits on the National Forests are held by 115 aliens, with the following representation of the various nationalities:

Italian	20	Mexican	4
German	15	Canadian	3
British	13	Swiss	3
French	11	Russian	2
Finns	11	Dutch	2
Spanish	9	Norwegian	1
Greeks	7	Chinaman	1
Austrians	6	Dane	1
Swedes	5	Serbian	1
			115

The distribution by Districts is:

District	1	31
"	2	34
"	3	14
"	4	19
"	5	5
"	6	12
"	7	--
		115

The South is Coming Strong

Austin Cary, who is engaged in cooperation work, recently returned to the office from a six-months' trip through the pine States of the South. He reports that region active in different war activities, also in a stirring and receptive state industrially, and heartily endorses a striking saying he heard on the trip that the South is to be "the next West" in this country.

Use of lands which have largely been idle to date is the main problem with which the region is struggling, natural ambition, taxation, and war conditions forcing the issue. All available ideas are being pushed, grazing and

agricultural use most strongly, but timber production also is in the minds of a good many people. The fire question is up in different localities. A good many are convinced that the annual burning which has been habitual, although it may have served certain purposes in the past, is now a heavy damage to the country in respect to all three of the above interests.

The southern people do not seem to be thinking just now about State forests, but Mr. Cary feels that, with a little effort expended in the way of guiding existing forces and tendencies, they might be led to acquire them.

Development of a large and well regulated stock industry at the South promises to bring much benefit to timber, according to Mr. Cary, because in the first place it focuses interest on land hitherto free and idle; secondly, it will bring a good measure of fire protection in its wake, and because a portion of a pasture area appears to be more useful for pasture if covered with a certain stock of timber. The movement to raise more and better stock in the South thus promises to do much for forestry as well as to serve the Nation directly. It is gaining fast, many substantial men--lumbermen and others--entering into it. Eradication of the cattle tick, fencing, improvement of stock, improvement of pastures and provision for winter feed are some of its features. Timber growing will be a sort of by-product in the beginning; later, if things work as foresters have expected, it may prove to be the dominant interest.

Mr. Cary spent over two months in Texas, cooperating among others with Mr. Siecke, the new State Forester just come on from Oregon. He also spent considerable time looking into the timber-producing power and facilities for fire protection on two very large properties in that State and reports the owners much interested and having the intention to go ahead on these lines. Rapid growth of timber in the region was a thing that much impressed him.

As a result of his visit in Florida, an association of leading business men has asked the Service to make a survey of the forest fire situation and of reforestation in that State, not omitting relations to grazing. A start at least on this job is expected to be Mr. Cary's first work the coming season.

Cut-Over Lands in the South

Prosperity, rather than devastation and waste, as the sequel to finished sawmill operations, is the aim of the Southern Pine Association. A. G. T. Moore has recently been appointed director of the association's cut-over land utilization department.

Present plans contemplate the taking over by the association of the McNeill Experiment Station at McNeill, Miss., operating it in conjunction with the Bureaus of Animal and Plant Industry of the U. S. Department of Agriculture. The grounds and buildings are contributed by the State; experts of the Department of Agriculture will be in actual charge, and the general overhead expense will be borne by the Southern Pine Association.

Maximum production of meat and wool-producing animals, the study of soils, the forage problem, and the relation of cut-over lands to the vocational rehabilitation of returned soldiers are some of the subjects to be considered.

News from Overseas

Capt. Herman Work, former Deputy Supervisor on the Caribou, just promoted from Lieutenant, has the distinction of being the first of the Tenth Engineers to receive a promotion overseas.

Lieutenant H. C. Williams, former Supervisor on the Idaho, has left the Tenth and been assigned to combatant service.

War Brevities

Since the beginning of the war the fir and spruce mills of Oregon and Washington have supplied 435,000,000 feet of lumber for war purposes, exclusive of the airplane spruce turned out by the Government plant at Vancouver, in the following classes:

Army cantonment construction.......	122,000,000 ft.
Emergency fleet ship timbers.......	292,000,000 "
Navy - boxing, crating, etc........	9,000,000 "
Signal corps - airplane stock......	12,000,000 "

In addition approximately 100,000,000 feet has been furnished through the Government plant.

A total of 2,271,321,878 feet has been furnished the Government since the war began, of which 1,155,521,878 feet were produced by Southern pine mills, 308,800,000 by Georgia-Florida mills, 45,000,000 by the Alabama-Mississippi producers, and 9,000,000 by the hardwood manufacturers.

The General Supply committee, on the advice of the Forest Service and the Director of Lumber, War Trade Board, has decided to buy on the open market all lumber needed by the Executive Departments at Washington during the coming fiscal year. This step was taken through failure to obtain satisfactory bids.

About 20,000,000 feet of hardwoods will be required for cannon wheel manufacture, according to O. B. Bannister, President of the Muncie Wheel Company. Mr. Bannister has just been appointed Wood Stock Expert for Artillery Wheels.

One of the problems in the production of the necessary stock is to find an outlet for the sizes not needed for Government purposes, which will accumulate in large quantities in supplying the artillery-wheel stock. For spoke material, hickory, white oak, and red oak are utilized, and the same for rim strips with the addition of ash.

Prospective Legislation in Georgia

Governor Dorsey of Georgia in his annual message on July 3 to the legislature makes, as one of his recommendations, the suggestion that consideration be given to the repeal of the Act of August 16, 1917, as a result of which the National Forest Reservation Commission decided not to make additional purchases of lands in the State for national forests, while such hostile legislation remained in force. This act withdrew the previously granted authority to the Federal Government of the right to condemn lands for purchase for national forests.

In 1901 the legislature passed an act authorizing the Government to acquire such lands, either by purchase, gift, or condemnation. Purchases of lands were begun by the Commission in 1911 and continued until 1917 when the Government had acquired about 110,500 acres in Georgia.

The hostile legislation referred to denied to the Federal Government the right to purchase by condemnation, except where the owner of the land consented in writing to such condemnation for the purpose of determining a fair price.

The ostensible purpose was to protect the small land owners, but it developed subsequently that the principal parties interested were certain large corporations outside the State owning large tracts in the area embraced in the plans for the national forest. Even those parties were disappointed in the effects of the law.

Wood Fuel Items

Mixed cordwood is bringing $10 per cord f.o.b. cars at Canton, Maine, a price meaning $12 or more delivered in four-foot lengths. Labor is getting $5 per cord for the cutting. Most of the wood is being shipped to Lewiston, getti a better price than is obtainable locally. This condition makes a fuel shortage imminent at Canton for such as are not able to cut their own wood.

One-man crosscut saws, portable gasoline drag saws, and many other similar more or less labor-saving devices are coming very much in evidence as a result of last winter's fuel stringency and the agitation for the substitution of wood for coal as fuel. Opportunity to try some of the devices is at hand in Washington and before long there will be wood-cutting bees. Local dealers are getting a supply of wood on hand.

Recent investigation of the wood situation in the city disclosed the existence of a stock of about 2,000 cords in a single woodyard. During the past year this yard handled 25,000 cords, a considerable increase in business over previous years.

Ranger Cayton of the Battlement is prepared for next winter. Recently he engaged the services of two men with their engine and cross saw to cut stove wood at the ranger station at the rate of $2 per hour for actual running time. In 7½ hours sawing with the assistance of one additional man enough stove wood was cut to last at least two years at a total cost of $25. Coal delivered at the station has been costing $14.25 per ton in times past. The results obtained bring the suggestion as to why not have the Forest Service, as a matter of efficiency and economy in the use of rangers' time, equip each Forest with a portable wood saw outfit which could be used in turn by the rangers.

Forest Service Publications in Demand

Request is made that field officers return to Washington all Forest Service publications that have been accumulated and for which there is no further need. The demand for publications is so great in Washington that in many instances no copies are available for distribution in response to urgent calls. The older the bulletins the more valuable have they become and the greater will be the appreciation on the part of Mr. Ballard if you send them in, as it now becomes his sad duty to send regrets to the many applicants rather than bulletins. "All Forest Service bulletins and circulars improve with age," says Mr. Ballard, "just like wine." We don't fully appreciate the comparison but take his word, for Ballard always knows whereof he speaks.

Washington Notes

Franklin H. Smith has returned to town. He states himself well satisfied with his roundup of his careless correspondents and exhibits gleefully the many scalps captured.

Rolf Thelen has completed his trip which included a couple of days at Marble Head, Mass., studying wood utilization at the airplane factories and two weeks at Madison.

R. K. Helphenstine, Jr., on his recent trip to the Naval Aircraft Factory at the League Island Navy Yard inspected a carload of spruce airplane lumber which had been received from the Cut-Up Plant of the Signal Corps at Portland, Ore. His stop-over at Philadelphia was spent in conference with the Emergency Fleet Corporation on the closer utilization of wood at plants producing treenails. It is hoped to interest ladder and handle manufacturers in this closer utilization.

W. Campbell Oman, Architect and Engineer Surveyor, Municipality of Singapore, Malay Peninsula, was a caller last week. Mr. Oman was particularly interested in getting available data on the protection of wood against the ravages of white ants.

Madison Laboratory

How to select or inspect airplane stock is set forth in a circular prepared by A. Koehler, specialist in wood identification entitled "The Grain of Wood with Special Reference to the Direction of the Fibers."

The purpose of the publication is to enable the inspector to become familiar with the different kinds of grain and to determine the direction and slope of the fibers so that pieces may be eliminated which would reduce the margin of safety on account of cross grain.

District 1

The burning of any slashing, underbrush, timber, stumps, grass, weeds, or other inflammable material during the period from June to September inclusive is prohibited by a recent order of the Montana Council of Defense. This prohibition against burning is made effective for the period of the war and its enforcement will no doubt do much to lessen fires caused by human agencies.

Twenty-seven Forest Service men of the District office profess ability to milk cows and have enlisted with the Emergency Farm Labor Section of the Public Service Reserve. Just at present most of the men are doing emergency work in the field fighting forest fires. Unless the weather man soon intervenes the chance of showing their skill as farmers is mighty slim.

Glen A. Smith, Forest Supervisor of the Kootenai, has been transferred to the District Office as Chief of Operation. C. A. Stevens, Supervisor of the Cabinet, succeeds Mr. Smith on the Kootenai and H. L. Baker, now in the Office of Silviculture, goes to the Cabinet as Forest Supervisor.

Jean Owen and W. F. Stephenson of Engineering have left for Camp Lewis.

C. B. Swin and Frederick Kuphal are back on the job on the Deerlodge Forest on special land classification.

Robert C. Clark, Forest Ranger on the Missoula, has been drafted for service in the National Army and has been granted military leave.

District 2

Subscriptions to the three Liberty Loans by this District show the following: Of the First Loan, $12,400 was subscribed by 95 members; of the Second, $24,150 by 168 members, and of the Third, $37,200 by 271 members, making a total of $73,750 by 321 members.

The grazing industry in the Black Hills has in recent years grown from a minor to a very important activity. With the extension of the 640-acre law in the surrounding prairies, the Forest range stands forth as an oasis for the stockmen.

To meet the increasing demand areas have been brought to the front that had been given scant attention, due to decreased water supply, as against other parts of the Forest. Generally speaking, the Forest is well watered except that in some regions the natural watering facilities require some development. This water improvement work has been going on steadily during the past years, on the initiative of the Forest Service and through cooperation with the permittees.

Extensive plans have likewise been worked out to control the use of salting grounds. During the past winter every opportunity was seized by the Forest officers at the combined stock meetings held with the county agent to prepare the prospective permittees that salting grounds would be designated. The idea was favorably received and the plan has been put in effect this year. Each salting ground is marked by a 2-foot board, bearing in black letters the legend "Salting Grounds No.____." on a white background. Each permittee has a salting ground assigned to him. Where several use the same range further cooperative arrangements are made whereby each permittee contributes his share of the salt during the grazing season, distribution of which is controlled by the association.

The sheep-killing case on the Gunnison Forest, where on the night of July 3, 200 sheep in a band of 1,100 were driven over a cliff and killed by three men presumably cattlemen, is under investigation, at the request of the Forest Service, by the U. S. Department of Justice.

A revision of the grazing regulations is asked for by the Egeria Park Stockgrowers' Association. At a recent meeting at Yampa, Colorado, the following resolution was adopted: "Resolved, that it be the sense of this meeting that the Forestry Regulations be revised so as to permit of assessments being made and added to the grazing fees to raise funds to be used on poisonous plant eradication work and for other necessary range improvements, whenever, in the judgment of the Forest officers, such work is necessary and desirable, such additional assessments to be added to the grazing fees on an entire Forest or group of Forests as necessity may require, and that other stock associations whose members are users of Forest range be invited to pass resolutions along the line of this one."

In 1917 fish planting operations in the District comprised the stocking of 117 lakes and streams with 1,547,700 trout fry from federal hatcheries and 34 waters with 2,129,000 fry from State hatcheries, making a total of 3,676,700 fry, or about 500,000 less than 1916. Cooperation with the Bureau of Fisheries in 1917, however, would have been doubled had it been possible to secure all of the fish requisitioned under the five-year fish planting plan. Only about 52 per cent of the number requisitioned were supplied. Since the fish planting work has now reached the stage where a good deal of it consists of replenishing waters previously stocked, special attention will henceforth be given to the selection of nurse ponds to furnish protection to the young fish. It is believed that many of our plants are depleted by the depredation of the older fish on the young ones.

For the first time in the history of District 2, every Forest in Colorado and Wyoming carries an allotment for sheep. The Battlement admits sheep this year for the first time and is the last Colorado Forest to do so. Sheep are also being carried on the Black Hills Forest this year for the first time.

Five experienced fire-fighting men from District 2 have been selected to go immediately to District 1, at the request of the District Forester at Missoula, to aid in controlling the serious fire situation there. Messrs. McLaren and Hutchinson from the Denver Office, Kleiber from the Bighorn, Blaine from the Harney, and one other to be selected later, have left for District 1.

T. W. Venemann, of the Denver Office, has accepted a position in the Bureau of War Risk Insurance at Washington and left on July 10 to enter upon his new duties. Mr. Venemann has been associated with the Forest Service for thirteen years, two years at the timber-testing laboratory maintained at Purdue University, two years in the Washington Office, and since 1909 in the District Office. During the last five years Mr. Venemann has been assigned to the educational and information work of the Denver Office.

District 3

A burnt fragment of rope and a fresh blaze on a pine tree were the slender clues that led Ranger Marcel F. Pincetl, of the Santa Fe, to apprehend two boys who had carelessly let their camp fire get away. The boys were gathering cattle, and when they returned to camp found their camp fire devouring the countryside. They fought it for full five minutes, and then, fearing the wrath of the Ranger, gathered up what was left of their outfit and precipitately found a new camping place. It was Ranger Pincetl's Sherlockean job to find the other end of the burnt rope and the axe that made the blaze. This would ordinarily be regarded as a big job even on a smaller and less precipitous Forest than the Santa Fe; but it was successfully done and two scared boys made a full confession. They were put to work fighting the fire and later settled the case out of court by paying $19, the cost of the damage done to the timber.

Major Myron G. Browne, at one time Forest Clerk on the Gila and later on the Coronado, was a recent caller at the District Office while on his return trip to Camp Kearney, California. Major Browne while yet in the Forest Service was interested in military affairs and at the time he resigned was commissioned lieutenant and served as adjutant in the Arizona National Guard, taking an active part in border patrol.

Ranger Joseph H. Woolsey of the Crook was severely bruised, one of his little girls sustained a broken leg, and the other had her jaw fractured in a runaway caused by a broken wagon hound. The accident occurred near the Arcadia Ranger Ranger Station while hauling a light load of lumber to do some repair work at the Ranger Station. His two little girls were on the wagon at the time taking a ride.

National Forest Examiner Ralph Hopping, in charge of insect control in the California District, has been detailed to this District to make a study of insect infestation, following the work done by Forest Examiner A. J. Jaenicke, now in District 6. Mr. Hopping has covered the Coconino Plateau in company with Mr. Pearson, later visited the Prescott, and has now gone with Mr. Chapman to the Santa Barbara sale area on the Pecos Division of the Santa Fe, where serious depredations by Dendroctonous are threatened. In connection with insects, it is interesting to note that a plague of locusts has attacked the southern end of the Pecos Division. Whether they are harmful to forage plants remains to be seen.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

July 22, 1918.

COLONEL GREELEY ON THE KNITTING WORK

The following excerpts from a letter just received from Colonel Greeley will interest those who took part in the knitting of sweaters and socks for the men of the Forest Regiments:

"I am a strong believer in maintaining the personal touch between our men on this side and their individual friends or groups of friends at home. The average American soldier suffers more from lonesomeness and the severing of old personal relationships than anything else. Anything that will help to maintain the old ties and which will give the soldier individually the feeling that his particular friends or groups of old associates are thinking of him and providing for his needs, is most desirable. I am very strong therefore for maintaining the kind of work which you and the good people in the Forest Service and in the lumbering organizations have been doing so admirably.

"As to the class of articles most needed, I would put the first emphasis upon sweaters. They can not be obtained by the great majority of our troops except through the voluntary activities of the people at home. They are exceedingly useful and it will be impossible to send too many of them to the Forestry Regiments. There is no question that the knitted socks will also be used to the full extent that they are furnished. They are much better than the Q. M. supplies, particularly under the wet and snowy conditions during which our Forestry Troops must work during many months of the year. Our men must work under conditions quite different from those of the combat troops during the bulk of the time, since their average day during the fall, winter, and spring months means 9 or 10 hours' work on wet ground, in snow, or in wet undergrowth with no chance to get dried out until the evening. Under those conditions, a substantially knitted sock is of far more service than the Q. M. issue. I would taboo entirely the knitted helmet, which very few lumberjacks would wear under any conditions. They are of service to motor drivers in cold weather, but I think might well be eliminated from the special work done for the Forestry Regiments. In brief, I would advise putting the first emphasis upon sweaters but also not discouraging at all the knitting of socks wherever that is more practicable or convenient.

"By all means keep up the personal touch in this work. Send your packages from individuals to individuals when that is possible. Put in little messages of friendship and good cheer to the recipient whoever he may be. Stick a package of cigarettes into the toe of a sock now and then or the picture of a pretty girl or something else just for the fun of a surprise to the soldier who gets it. All of these things help immensely. Our boys are in for a long absence from their homes and loved ones, and anything that can be done to maintain the chain of old associations is worth while many times over."

While it is a satisfaction to learn from Colonel Greeley that the knitted articles are really useful and wanted on the other side, the problem of getting them across still remains more than knotty. Until and unless we can find some way out of what is at present a practically complete tie-up, there is not much use in planning for the making of more garments.

Serious Fire Situation in the Northwest

The gravity of the fire situation in the Northwest has if anything increased during the past week. The dry, hot weather which began in May is still unbroken. In certain sections local rains have occurred, lessening the danger temporarily. On the other hand, in many sections there have been electrical storms without rain which have started many fires. Expenditures continue very

heavy, running probably from ten to fifteen thousand dollars per day. Since there is available for use during July and August only one-sixth of the amount of the appropriation for the fiscal year 1918, the funds are extremely limited and the Forester and the Secretary of Agriculture are now considering what action shall be taken if appropriated funds are completely exhausted. The Secretary has approved increasing a deficit to the amount of $750,000 so that it will not be necessary, as it was last year, to withdraw, except temporarily, from other schedules. The real difficulty, however, lies in the limited amount of money which is actually available for expenditure.

In northern Idaho and western Montana the labor situation has in general been quite satisfactory. A Forest Service employment office in Spokane has secured several hundred fire fighters and until now it has been possible to furnish labor as needed. In District 6 the War Department has given very valuable cooperation. A conference between representatives of the War Department, the States of Oregon and Washington, and the Forest Service is being held today (July 30) to consider further plans to meet the situation. Probably never before has a graver situation existed with respect to the protection of the National Forests from fire.

WM. L. HALL.

Legislative Matters

Congress entered upon its vacation without making appropriation for the Department of Agriculture after the veto of the original bill which contained the item of $2.40 wheat. There is no chance of any definite action until after August 24. Meanwhile a sufficient number of members of Congress remain in Washington to attend perfunctory sessions held every three days. Under the agreement no business of importance is to be considered.

Paper Conservation To Be Part of War Program

A Paper Section has lately been created in the War Industries Board. Curtailment of paper production has become necessary for a number of reasons. These include shortages of certain ingredients, scarcity of fuel and labor, and necessity of reducing transportation. One of the first things taken up by the Paper Section has been ways of lessening the consumption of newsprint paper. Book, writing, wrapping, and all other kinds of paper will also have to be dealt with. The Government consumes an enormous amount of paper, both in its publications and in its business. This consumption has been vastly increased by the war. Nevertheless, while the war needs of the Government must be supplied, it is obvious that in a program of economy the Government should lead the way in cutting off unnecessary consumption.

Doubtless there will shortly have to be inaugurated a general propaganda for paper conservation on the part of the public, like the food-saving and fuel-saving campaigns. Economies within the paper trade are already being effected - for example, stationers are discontinuing the inside envelope for wedding invitations.

The Forest Service has already issued instructions for the use of short instead of long envelopes in its correspondence, wherever the short envelope will suffice. Manila envelopes are to be used for certain classes of correspondence. The Forest Service has offered to try to work out, for the Paper Section, a demonstration of what is practicable in reducing the demands of a Government bureau for paper. On the basis of this demonstration, similar economies can be urged elsewhere. We should take pride in the fact that our organization is to take the lead in this matter, and should use our best brains to devise as effective a scheme as possible.

Until a general plan is proposed, let everybody see what he or she individually can do to cut out waste. Any good suggestions will be welcomed by the Forester. Those coming from the Forests should be submitted through the District Foresters.

Acreage of Dixie Forest Reduced

The President on July 12 signed a proclamation eliminating from the Dixie National Forest, Nevada, and Utah, an area of approximately 228,000 acres.

Most of the eliminations occurred on the Moapa Division in the extreme southern part of Nevada, where 125,000 acres were excluded from the Charleston unit and the entire Sheep Mountain unit restored to the public domain. This action resulted from reports prepared by the Forest Service and approved by the Secretary of Agriculture. The lands eliminated contain only sagebrush, juniper, and pinon. The new boundary of the Charleston unit was so drawn around Charleston Peak, Nevada, as to retain only the land of the yellow pine timber type. Several small tracts were eliminated from the Utah Division of the Forest.

The proclamation also added about 8,320 acres in small areas to the Forest in Utah along the present southwest boundaries. These additions were made to facilitate the administration of that portion of the Forest.

Fire Manual for Western Fire Fighter

A looseleaf fire manual for the use of fire fighters in the Northwest has just been issued by the Western Forestry and Conservation Association, under the direction of E. T. Allen, forester for the Association.

The manual is divided into chapters each dealing with a special topic. Chapter I is entitled "The Fire Fighter's Profession"; Chapter II, "Fire Laws and Their Enforcement"; Chapter III, "Trail Building"; Chapter IV, "Telephone Construction and Maintenance"; Chapter VI, Tools, Equipment and Supplies". Chapter V, still in press, covers lookouts and will appear shortly.

As a special feature the manual is printed in pocket size, about 4 x 7 inches, on light paper so that it can be carried in the pocket without being a burden.

Combined Department Exhibits

Broad features of Forest Service work and the more important results of investigation are presented in popular and striking form in the contribution by the Forest Service to the combined departmental exhibits which start out on a 25,000 mile journey the beginning of August.

Thirty-seven fairs are included in the itineraries of the six circuits. Each circuit is under personal charge of a representative from one of the participating bureaus. C. A. Lindstrom, who has been busy for some time getting the Forest Service exhibits together, will be in charge of Circuit No. 3. This circuit comprises the most pretentious of the Forest Service exhibits and consists of seven models of good and bad lumbering in southern hardwoods; one of erosion; one on relative heat value of coal and various kinds of wood; one of an open-tank fence-post treating plant, and a showing of the proper way to set posts; also six treated fence posts of seven species showing conditions after ten years in the ground; samples of commercial wood preservatives; an exhibit on turpentining, including timber boxed and cupped, tools used, and samples of resin; and about 100 bromides, transparencies, and charts on the above and on forest fire protection and other National Forest work.

The fairs to be visited are mostly in the East and Middle West and little chance is given the men on the National Forests in the West to see any of the exhibits. However, Circuit No. 5 includes Douglas, Wyo., Pueblo, Colo., Salt Lake City, Utah, Los Angeles, Calif., and Phoenix, Ariz.

Wherever suitable facilities are at hand it is planned to supplement the exhibits by motion pictures and illustrated slides. Mr. Lindstrom has fortified himself with a set of Forest Service slides and is prepared to give the necessary illuminating talks.

War Brevities

Food shipments to the value of $1,400,000,000 were made during the past fiscal year, according to a statement made by Herbert Hoover. In the main these supplies were purchased through or with the collaboration of the Food Administration and include all shipments to Allied Countries for their and our armies, the civilian population, the Belgian Relief, and Red Cross.

The shipments of meats and fats (meat products, dairy products, vegetable oils, etc.) were 3,011,100,000 lbs.

In cereals and cereal products the shipments amounted to 340,800,000 bushels.

Walnut for war use is being offered in many forms. Cooperation has just been tendered the Government to assist in the location and salvage of a reported raft of walnut logs in Spring River in Arkansas. Report has it that a raft "4½ miles" in length was sunk in the river at the time of the Civil War. Several efforts have been made to raise the sunken logs, but although partially raised on one occasion the raft sank again and has been held in place in spite of freshets and floods.

Forestry in Kentucky

J. E. Barton has been appointed Commissioner of Forestry and Geology for Kentucky by Governor Stanley. The appointment was made under an act of the 1918 Legislature consolidating the offices of State Forester and State Geologist. Mr. Barton had been State Forester. No appointment has yet been made of the Deputy Commissioner who must be a graduate geologist.

Redington Returns to Forest Service

Paul G. Redington is again in the saddle as District Forester for the Southwestern District. Mr. Redington resigned from the Forest Service about six months ago to take up the duties as City Manager for Albuquerque, but soon found that his years spent as Forest officer had created ties he could not break, and so he is back in the fold once more.

Washington Notes

L. S. Murphy has returned to town from an extended field trip primarily in the interests of cooperation under the Weeks Law. Mr. Murphy has promised to let us in on many additional matters of interest,of which we hope to give an account next week.

D. L. Quinn of the Forest Products Laboratory, who is in Washington for one day between trips, reports that the field inspection of packages at the various ports of embarkation for the purpose of saving cargo space is progressing satisfactorily and that the shipping authorities are showing a fine cooperative spirit.

Findley Burns has gone away for a week without telling us what to say about him here. When last seen he was carrying golf equipment in one hand, and in the other a mysterious package, of which he refused to disclose the contents.

District 1

Forest Rangers William A. Kerles, of the Bitterroot, and S. S. McEwan, of the Kaniksu, resigned June 30.

R. C. Eggleston, formerly of this District, is now 1st Lieutenant in the Officers Reserve Camp and is in training at the Aberdeen Proving Grounds, Aberdeen, Md.

Miss Rachel Iverson is on duty as lookout at the McCaffery Lookout on the Flathead Forest. Through residence in this section Miss Iverson has become thoroughly familiar with the locality and so will feel at home in getting a bird's-eye view of the country controlled by the station.

E. B. Tanner, fire fighter on the Trail Creek fire on the Clearwater Forest, was instantly killed by a falling tree. He was engaged in felling a burning tree.

District 2

Deputy Supervisor William Wiehe, of the Black Hills, has gone to Missoula to assist in the fire work on District 1. Fighting fires has become second nature with Mr. Wiehe during his twelve years of service on the Black Hills Forest.

District 3

Grazing Inspector Nelson of the Washington Office and Assistant District Forester Kerr are making a general grazing inspection trip which is intended to include the Datil, Apache, Sitgreaves, Tusayan, Coconino, Tonto, Coronado, and Gila Forests.

Inspector of Grazing Kavanagh and Supervisor Hoyt conferred with the Advisory Board of the Showlow Stock-growers' Association recently with the result that a new horse roundup was commenced on the east end of the Sitgreaves. It is stated that 300 per cent more horses showed infection this year than in last year's test.

Several shipments of yearling steers have recently been made from the Tusayan Forest. These steers sold at an average price of $38 per head. Buyers apparently do not want two and three-year-old steers at present and endeavored to cut back all the older steers in the shipments.

Charles H. Jennings, former Supervisor of the Sitgreaves, is now in the automobile business in California.

The State Council of Defense has under consideration a plan whereby the people in isolated sections may have information brought to them as to the present war needs of the country. This subject was brought to the attention of the Council on a suggestion of Ranger Turk that special effort be made to cover the outlying mountain districts by arranging for a series of talks on war topics.

The famous three-toed male wolf which for several seasons has played havoc with the stock in the Jemez Division of the Santa Fe is no more. The wolf, after being caught, escaped with the trap but was trailed and shot after an exciting chase. The hunters of the Biological Survey secured 390 predatory animals in New Mexico and Arizona during May. The catch consisted of 2 cougars, 17 wolves, 1 bear, 313 coyotes, and 57 cats.

Demand for cattle range on the Sitgreaves is so keen that steps are under consideration to refuse permits to the poor class of horses - "broom tails" - now running under permit. This will bring about a removal of the horses grazing under permit and also of the large number using the range, of which it has been difficult at times to ascertain the owners.

District 4

To recognize overgrazing in its incipient stage has long been a problem in range management. Inability to do this has made it impossible to change the damaging factor before the damage had become serious. The problem is now a thing of the past, if the recent report of the Experiment Station, "The Application of Plant Succession to Range Management," by A. W. Sampson, holds true. This report indicates that there is a finer measure by which to recognize faulty management than that of merely noting the density of the plant cover and the condition of the stock grazed. The most reliable guide is to note the replacement of one type of vegetation by another, a phenomenon which comes much into evidence when the normal plant cover is disturbed by excessive grazing or by other adverse factors. Each forage type has its plant indicators, both positive and negative. If these indicators are recognized, it is not only possible to tell with precision whether the range is improving or decreasing in productivity while the ground cover is still intact, but the rate of change in the cover can also be closely estimated.

Nils B. Eckbo, of the Wyoming Forest, has gone to Madison on detail for the duration of the war.

In the effort to provide winter range for elk, portions of the Teton Forest have been closed to the grazing of domestic stock.

The Council Valley Cattle & Horse Growers' Association, of the Weiser National Forest, has sent the District Forester a pledge, signed by 42 members, that they will at all times be ready to act on their own initiative and assume responsibility for suppressing any fires that occur within the Ranger District used by the association. They will keep fire-fighting equipment and means of transportation on hand and donate their services and transportation equipment, voluntarily and without compensation. They also agree to cooperate in the same manner, so far as their farm work and personal interests will permit, over the entire Forest, with the usual rate of compensation, in the case of fires outside their own District. The pledge is to remain in effect during the period of the war. Fire conditions in the District at the beginning of July were rather unusual. The Nevada, Utah, and Wyoming Forests had been covered by heavy rains, and the hazard was low. This also was true of the Targhee, Palisade, and Caribou Forests in eastern Idaho. Few of the storms occurred west of the Sawtooth Forest, and the fire hazard in the central Idaho group was very acute, being fully as bad as during the seasons of 1910 and 1914. Many of the patrolmen and Assistant District Rangers were new, inexperienced men, lacking in familiarity with their Districts. The labor situation was very bad, wages being $4 per day with board, and men difficult to secure even at that rate.

Notwithstanding these conditions, only one important fire thus far has developed. This occurred on the Idaho Forest on the South Fork of the Salmon River near Four Mile Creek. Because of the labor situation, no attempt was made to extinguish the fire, but 9 men were employed to work along the side lines, keeping the fire under control and, so far as possible, away from valuable timber. The plan was quite successful, the last advices being that the fire was under control, the damage being small, although the acreage burnt over was in excess of 1,500 acres.

Although the usual number of fires have occurred, and some have reached Class C dimensions, it thus far has been possible to control them without an excessive expenditure of funds.

District 5

Twenty-one convictions have been secured, up to June 30, in the present fire-law enforcement campaign. This record is for the first two months of the fire season, covering in fact only one month from its official opening, but equals the number of convictions secured during the entire calendar season of 1917. The new campaign is "getting there." A number of convictions are already reported for July, and it is believed that this month has a good start to beat June. Two specially gratifying features are that only three cases have resulted in acquittal, which shows that the field men are "getting the goods," also that several of the convictions have been of old incendiaries who have openly boasted that the Forest Service could never "get" them. Frequent congratulations are received from law-abiding citizens and a change of sentiment for the better is evident in many heretofore hard localities. This season is a hard one, but the boys are "on their toes."

The fire-prevention and law-enforcement campaign is sharpening wits in more lines than detection and conviction of law breakers. The following is one of several clever posters with which Supervisor Heustis has struck ten on the Trinity:

LAST WEEK

Jim Jones brushed out 5 miles of the Rocky Ridge Trail, built a water trough at Pineville and repaired a break in the telephone line near Hyampom

JIM is a fire guard

and he was enabled to do this work because there were

No Fires to Fight

HELP

JIM

To Prevent Fires

And he'll help on Community Improvement

Increased activity is developing in timber sales in the District through increased demand on account of Government work for box stuff to ship California's big fruit crop.

An extensive exhibit to be shown at a number of fairs in the State is being prepared by the Office of Information. There will be models showing a typical ranger station, various forest activities, proper lumbering methods, the results of forest fires and how such fires may be prevented, and fire locating and fighting apparatus, also California forage range plants, mounted specimens of predatory animals, etc. Where possible, it is planned to make use of a recently acquired motion picture machine.

The sudden loss of 126 sheep which were being driven across the Stanislaus Forest on the Mono-Sonora Road recently caused considerable excitement. On investigation, the State Veterinarian found that the sheep had contracted anthrax and that several more herds of cattle and sheep then en route to the National Forest were infected. Proper disposition was made of all the carcasses, immediate quarantine established, and the driveway changed. This worked a hardship on some of the permittees, but it was the only method at hand to prevent more serious losses. The veterinarians have found that cattle leaving the Forest last fall developed anthrax shortly afterwards and that the source of the infection was the water supply. The County Board of Supervisors and the stockmen have cooperated in maintaining the quarantine and hiring a permanent veterinarian for this year. The Forest Service is giving close supervision to all stock and it is felt that the outbreak of this serious disease is now under control.

District 6

Pictures illustrating transportation and construction of the standard lookout house on Mount McLoughlin, taken by E. W. Smith, lookout man, have been received. They show the ready-cut material being taken up the rocky mountainside on pack horses, and the construction work at various stages, from the laying of the foundation timbers to the complete house. Mount McLoughlin is 9,483 feet high. The material was transported to the very summit on horseback.

The two fires previously reported on the Rainier and Crater developed into large burns which have not yet been put out. The Rainier fire has covered practically all of the old Cispus burn, of 1902, destroying the fine reproduction on about forty thousand acres. The Crater fire spread over about twenty thousand acres, chiefly old burn. Very little of the merchantable timber was destroyed by either of these fires. A heavy rainfall will be necessary before either of them will be completely put out.

The Home Guard of Pilot Rock, Oregon, has volunteered its services to Supervisor Cryder for fighting any forest fires on portions of the Umatilla Forest which may get beyond control of the regular fire-protective force.

Foresters have a prominent place on the program of the tenth annual Commonwealth Conference of Oregon, which meets this week in Portland. Benton MacKaye, T. T. Munger, and B. P. Kirkland are on the program of the opening session of the conference, at which Governor Withycombe will preside.

Forest Examiner A. H. Hodgson, of the District Office, has resigned to accept a position with the Radium Luminous Material Corporation, of New York, and will be located at Naturita, in southwestern Colorado. C. P. Willis, a former member of District 6, is manager of the operations of the company at Naturita. Mr. Hodgson has been a member of the Service for about ten years. During the last few years he has been in charge of the Office of Geography in the District Office.

The United States Geographical Board has approved the name of Muncaster Mountain for a previously unnamed peak on the Olympic Forest, between the Quinault River and Rustler River. This name was suggested by members of the Forest Service to commemorate the name of Roy Muncaster, formerly District Ranger in the region where the mountain is located, who lost his life in the Tuscania disaster.

Captain James Frankland, of the 69th Artillery, C. A. C., formerly a member of the District Office, was in Portland this week on his way from Fort Stevens to Fort Worden, Washington, to which Fort he has been transferred as Chief of Staff under Colonel Woods.

Forest Examiner H. L. Plumb has been detailed by District Forester Cecil to make a fire-protective plan for the military training ground at American Lake, which embraces about eighty thousand acres. Parts of this tract are timbered with young Douglas fir and scrub oak. The protective plan is to provide for protection from forest and grass fires.

Forest Inspector E. E. Carter, of the Washington Office, arrived in Portland July 11 and will spend some time on inspection work in the District.

Miss Helen McCormick, of Eugene, has been engaged for patrol work on the Cascade Forest. She will cover her district on horseback and travel prepared to camp out along the trail when necessary. It is believed she is the first patrolwoman to be employed on any of the Forests in the District.

A recent brief investigation by the Bureau of Entomology carried on in the Lower Columbia River Basin has revealed the presence of a defoliating spruce bud-worm working over an extensive area. The Bureau, in cooperation with the Forest Service, is planning further study later in the season preliminary to fighting this dangerous pest.

Governor Withycombe has requested the Secretary of War that limited-service men from Camp Lewis be detailed to fire-patrol duty in logging camps, necessary railroad units, and timber districts in Oregon, as a result of a resolution adopted at a meeting of the Oregon State Board of Forestry held in the District Forester's office July 6. The State Forester is to arrange the details of patrols with local officials. The proposed action is endorsed by Colonel Disque, Supervisor Wentworth of the Shipping Board, and District Forester Cecil.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for Publication)

July 29, 1918.

Clifford Weertendyke Writes to his Washington Friends

Paris, France,
June 30, 1918.

To All Members of FPD:

My dear Friends:

Your letter of June 7 received Saturday and it's useless for me to say how pleased I was to get it. Believe me, one can't realize or appreciate what it means to have such good friends until he gets thousands of miles away and among strangers. Keep the good work up and let me hear from you regularly, as I depend upon what mail I receive to keep my spirits up.

Having had the reputation in your office of always being willing to take chances, I feel as though it's up to me to live up to my past rep and give you some idea of what there is to be seen over here, in addition to dodging bombs dropped by the Huns.

In the first place, dear folks, let me impress you with the fact that I'm not over here on a pleasure trip. No doubt you already know this, but for some unknown reason there are people back in the States, as well as in Paris, who think civilian employees are here for only one purpose, and that is to have a good time. Speaking from my own personal experiences, I can honestly say it's just the opposite, for we are not only doing our bit in a small way, but at the same time we are taking a few chances. One would think so at any rate if here long enough to witness these constant night raids and bombardments by "Big Bertha" during the day.

I am living in "The Latin Quarter," one of the oldest and most famous sections of Paris. Here we find all classes of people and one from America can find many places of interest. I wish I could go more into detail regarding this, but I want to touch on other things which will interest you.

I had the privilege of witnessing a mid-air battle, and without doubt it was one of the most spectacular events of my young life. This particular night I happened to be calling on a captain friend of mine connected with the American Red Cross. When ready to leave for my hotel, the siren cut loose and naturally I was compelled to stay for the remainder of the night. However, my feelings weren't hurt, because one doesn't get this opportunity every day. It was a beautiful moonlight night and we could see quite well the position the Allied machines (two, I think) took in waiting for the enemy. It wasn't a long duration to hold us fellows in suspense, because in the course of a very short time--to be exact, 20 minutes--the Hun made his appearance and then they had it out with the French, being "victorious again as usual." The French are masters of the air without doubt and we have to give them credit, although our boys are giving a wonderful account of themselves and when this terrible conflict is over, hats off to the "Sammies," for it is they who have put "Pep" into the recent drives. You can't beat their pluck and go-after spirit.

For the past week we have had a raid every night. Considerable damage was done in addition to the loss of a great many lives. Little did I think or rerealize last year this time I would be in the midst of all this excitement, but here I am, and now my only comfort and hope is to trust in the dear Lord to watch over me and return me safely to my dear wife and mother, as well as my good friends in FPD. Friday night the first alert was given at 11 P. M., and although the Huns failed to cross the line then, they didn't feel a bit discouraged for they came back a little later (of course they waited until I was comfortably fixed in bed) crossed, and did things up in fine style. Oh, how I hate the Huns!

Well, good friends, it took me just about one second to jump into my safety-first costume (bathrobe and slippers) and make for a place of safety--Abri, in French. I was sitting there unconcerned, when all of a sudden a bomb dropped. Immediately I stood at attention and was trying to figure out where it had hit. Fortunately for me it struck about one mile from where I was hiding; you can get some conception from this as to the size they are using now, for I could have sworn it was right over my head. After the clear signal was given, I took to the street and with the aid of a candle I managed to find some shrapnel which I will show you upon my return to the States.

****

Captain Godwin Sends Thanks for Christmas Box

The following letter has just been received at Washington:

France, June 26, 1918.

We received here yesterday, at the headquarters of the 2nd Battalion, 10th Engineers (Forestry), a large Christmas box containing a splendid and most welcome assortment of things for the men.

Not desiring to criticise the postal or shipping authorities, for as you know the censorship regulations prohibit such criticism, I can not but remark with what accuracy of planning and dispatch the box reached us an even and exact six months after the date on which you proposed it should reach us.

But not one regret is there, and not one man but is most delighted that the shipping authorities so cleverly divided his "from home" pleasures half-way between Christmases.

That almost every article is the actual and very personal handiwork of the donor enhances greatly its value to each recipient. Further, there attaches to any article which is "All American" a value which can not be appraised. Our appreciation is great. For the Battalion I thank you all.

In order that you may identify the package, I have appended a list of the contents and a transcription of the address.

(Signed) D. P. GODWIN, Capt. Engrs. R. C.,
Adjutant, 2nd Bn.

17	Cans Prince Albert Tobacco
2	Cartons Camel Cigarettes
180	Cigarettes, Tobacco, Small Packages, etc.
42	Packages of Candy
3	Packages Dates
4	Boxes Dominoes
1	Box Gum, etc.
1	Scarf
44	Sweaters
12	Pr. Socks
8	Pr. Wristlets
5	Helmets

Box marked:

"Engineer Headquarters (Forestry),
AEF France
c/o Capt. Francis Keifer."

Fire Protection in the South

Forest fire protection has only recently begun to receive serious consideration in the South. It is encouraging to note, however, that the idea is spreading and it is not too much to hope that, with the general awakening and the agricultural and industrial development bound to follow the present war, forest fire protection will come into its own.

The problem of forest protection as a public measure is far from simple in any case and is further complicated in the South by a long and dangerous fire season, nonresident ownership of much of the land, a large proportion of shiftless and more or less irresponsible citizens (both white and colored) with neither property interests nor public spirit to interest them in fire protection, an overdeveloped notion of the rights and privileges of the individual, and a constitutional aversion to changes or innovations with its complement of prejudice and narrow-mindedness.

These characteristics are by no means peculiar to the South, yet they have played an important part in delaying the development of the protection idea and, perhaps more than in any other part of the country, have made it necessary to appeal to and educate the people to the importance and value of fire protection. In education, at any rate, and in appeals to the individual lies the secret of such success as has been achieved.

The financial stringency existing in most of the Southern States since the Civil War has been another factor contributing to the slow growth of the protection idea, for the State legislatures have been very unwilling to appropriate funds for new projects. With the development of the southern oil fields and coal measures, conditions in this respect are changing, and development along broader lines in the way of schools, good roads, and fire protection is to be looked for. The fact remains, however, that a public demand must first be developed. Hence the importance of educational efforts.

To date seven States have undertaken something in the way of systematic fire protection--Maryland, Virginia, West Virginia, Kentucky, North Carolina, Texas, and Louisiana. Tennessee also employs a State Forester, but as yet has done nothing in the way of organized fire protection. In addition, Mississippi, Florida, and Georgia are also beginning to show signs of interest.

The seven States named above have received Federal aid under Section 2 of the Weeks Law. Last fiscal year Maryland received $1,637; Virginia $3,478; West Virginia, $5,107; Kentucky, $1,675; North Carolina, $1,116; Texas, $3,786, and Louisiana (the last State to avail itself of the provisions of the Weeks Law) $189. These sums were all met or exceeded by the States themselves, and a total expenditure for fire protection of approximately $44,121 was made.

In addition, private cooperation has been dveloped locally to a high degree in a number of instances, notably in West Virginia, southwestern Virginia, southeastern Kentucky, North Carolina, and Louisiana. This interest in fire protection, by numerous big corporations is encouraging and sooner or later is bound to react on public opinion in the various States concerned. In the meantime, education and propaganda on a large scale are needed to develop a favorable public sentiment as a foundation for more intensive work later on.

In the matter of organization the protective work in the various southern States differs widely. Thus, in Maryland a strong State organization has developed, while in Virginia the work is organized along county lines and made contingent on local cooperation. In North Carolina, also, the work is cooperative but is local in character and depends on private rather than county aid. In Kentucky and Texas the work, while wholly dependent on State and Federal funds, is organized by counties or districts conforming more or less to county lines; while in West Virginia a State organization headed by the Forest, Game, and Fish Warden shares the field with two large and thriving private cooperative associations, all working in harmony, but more or less independently of each other.

The methods of handling the work are also as various as the States concerned, Maryland depending on local wardens, supplemented during the danger period by patrol and lookout men, Virginia on per diem patrolmen and voluntary fire fighters, West Virginia on a rather extensive lookout system and numerous local

wardens, supplemented by the efforts of the two protective associations, Kentucky on paid county wardens and volunteer fire fighters, North Carolina on patrolmen working in cooperation with various local organizations, Texas on a rather extensive system of educational patrol, and Louisiana on patrolmen and paid fire fighters. While none of the systems in effect are perfect they all have their good points and are more or less suited to local conditions.

The most encouraging feature of the whole business is that slowly but surely the idea is taking hold. While in particular cases the outlook is discouraging enough, on the whole one can not go over the ground without feeling that something is being accomplished and that the future holds prospects of better things.

J. A. MITCHELL.

New England Notes

The forest fire situation in New England is exceptionally good this year. An unusually early and threatening season has settled down to one in which weather conditions are extremely favorable.

In Maine the worst of the fire season was actually over before the full force was effectively organized and at present practically the entire patrol force, comprising about 100 men is laid off. Even some of the lookouts are off duty. This situation is, however, not without danger, for overconfidence may undermine the effectiveness of the protective organization in the case of a sudden emergency. There is also danger in the constantly increasing amount of slash and the diminishing purchasing power of the dollar when it comes to hiring labor.

Conservatism in cutting operations in the spruce section is rapidly disappearing. Anything that will make a three-inch four-foot pulp stick is cut. Similar wrecking is also taking place in the pine and hardwood woodlot region further south. In some respects the situation is even worse here than in the spruce forests.

In New Hampshire whole farms are purchased by sawmill operators and speculators, who skin off the pine and then put the farms up for sale. These speculator owners and portable sawmill operators have little or no public interest in the communities in which they operate. They even go so far as to cut the trees along the highways crossing the property purchased for the timber.

Considerable damage has also been done to the highways by heavy hauling by lumber and tote wagons in the early spring when the roads were soft. The State as a whole is thus liable to suffer through heavy highway repair bills and through the diversion of automobile travel on account of the condition of the roads.

The wood fuel campaign has been successful in one respect only. The farmer has laid in a supply of wood which far exceeds anything seen in generations. This is, however, about all that has been done. An insignificant amount is being cut for sale for town and city consumption. The reason is high wages and labor shortage. Even where lumbering is going on in the accessible woodlot sections, slab wood is being burned instead of being placed on the market. It should be marketed even though it is mostly pine.

Recent efforts for special forest legislation failed in both New Hampshire and New York. In the former State the constitutional convention defeated decisively a proposal to substitute a yield tax for the general property tax in the case of forests. The lumbermen's support of the bill undoubtedly had much to do with its defeat, the general feeling being that it was merely a device to help out the lumbermen.

In New York the forest yield tax bill was defeated by a pocket veto.

L. S. MURPHY.

National Forest Receipts for 1918

There was an increase of $117,901.66 in the receipts for the fiscal year ending June 30, 1918, over the previous year. The total receipts were $3,574,930.07, as against $3,457,028.41 for 1917.

The various activities contributed as follows: Grazing, $1,702,289.58; timber sales, $1,519,866.69; special use, $119,978.55; timber settlement, $99,500.62; water power, $93,976.35; turpentine sales, $8,334.02. The income from various trespasses totaled $23,532.36 for grazing, $3,618.24 for fire, $2,329.85 for timber, and $1,207.39 for occupancy. The sale of a buffalo bull on the Wichita netted $296.42.

The largest increase in this year's receipts over that of the previous year was in grazing, and amounted to $157,576.70. The largest decrease was in timber sales and amounted to $76,006.71.

Washington Notes

C. H. Teesdale and A. L. Heim, of the Madison Laboratory, were in town last week to attend a conference called by the Shipping Board to consider the removal of the embargo on casein importations from Argentine. Casein is the main constituent in waterproof glue used in aircraft production.

Messrs. Teesdale and Heim also discussed with representatives of the Navy Department the programs of work covering tests on propeller woods now under way at Madison.

R. K. Helphenstine, Jr., made an inspection of a carload of spruce airplane lumber at East Greenwich, R. I., during the past week. The material came from the cut-up plant of the Signal Corps, at Portland, Oregon.

S. T. Dana has resigned from the Forest Service to accept a commission as Captain in the National Army. Captain Dana has been detailed to the General Staff as Wood Expert, with headquarters at Washington. In preparation for the arduous duties he is about to assume, Captain Dana is taking a few weeks' leave.

D. C. Ellis has been definitely transferred to the Secretary's Office and will now give all of his attention to the motion-picture activities of the Department of Agriculture. Mr. Ellis has been engaged on this work for the past six months on special detail from the Forest Service.

A record of receipts from timber sales during the past year shows that District 6 leads in the grand total and in the monthly receipts. Districts 4 and 7 have been busy crowding each other into last place. The relative position in regard to monthly receipts is indicated in the following:

Position	District	Number of Months Occupying this Position
I	6	12
II	1	4
	3	4
	5	4
III	1	5
	3	3
	5	2
	2	2
IV	2	5
	3	4
	1	2
	5	1
V	2	5
	5	5
	3	1
	1	1
VI	7	7
	4	5
VII	4	7
	7	5

Madison Laboratory

The pressure of war work has made necessary an increase in the personnel and an expansion in laboratory space. At present the Laboratory payroll carries the names of over 300 workers as against 75 to 80 names during normal times.

Additional quarters have been provided by the Regents of the University. They have recently put the work of the Laboratory ahead of both the University educational and vocational work and have turned over in their entirety for the use of the Forest Service the Agricultural Engineering and old Soils buildings. These are three-story brick structures.

Previously, additional space was provided by turning over one floor in the new Soils Building, the Materials Testing Laboratory in the Main Engineering Building, a small laboratory in the Chemistry Building and the Box Testing Building.

A new sawmill building has also been erected and an addition made to the present Box Testing Laboratory.

District 1

Norman W. Scherer, Professor of Forestry at Ohio State University, and Joseph Yeneso, of the New York State College of Forestry, are the latest recruits to the field force engaged on the white pine blister rust campaign.

This year's work consists in making inspections of all imported currant and gooseberries. This nursery stock comes mainly from the infested regions of the East.

District 2

A. G. Lincoln will assume his duties as Hydro-Electrical Engineer for the District early in August.

A verdict for the defendant was directed by the court in the fire trespass case of the Forest Service vs. The Virgin & Rainy Lake Company recently tried at Duluth. The suit was for the recovery of $2,200 damage for injury to timber on the southern limits of the fire and for the cost of extinguishing the fire. The timber on the remainder of the fire area has been purchased by the trespasser. In giving the instruction directing the verdict, the court stated that no showing had been made by the plaintiff fixing the responsibility for the fire through the setting of back fires around the logging camp of the company.

Lieutenant A. M. Cook, former Supervisor of the Routt, and Sergeant W. O. P. Fullerton have arrived safely overseas. They made the trip together.

John A. Burgess, former member of the District Office, has been promoted to Second Lieutenant in the Engineer Corps and is now stationed at Camp Lee, Va.

District 3

Recently thirty head of cattle grazing on the Cloudcroft District of the Alamo Forest were lost through poisoning. Examination of stomach contents made by the chemist of the Agricultural College determined the presence of strychnine in sufficient quantities to have been the probable cause of death.

V. V. Eggleston, of the Bureau of Plant Industry, is making an examination of range conditions south of Winslow, Arizona, where last fall there occurred a heavy and sudden loss of sheep. Special attention is given by Mr. Eggleston to pingue, loco, and larkspur poisoning.

Eight pairs of socks have just been sent to Washington by the knitting committee, making a total to date of 55 pairs.

A large silvertip bear which has been preying on stock in Whitewater Canyon, on the Gila, has been killed by Ranger Warnoch.

Roscoe Wells, of the Bureau of Entomology, Specialist on Parasitic Insects, is now in Arizona anxious to tell the stockmen all about ear ticks, screw worms, and other parasitic insects of livestock.

Five cougars were killed in one week by trapper and hunter Chester during the first part of July on the Rincon district of the Coronado.

Two grazing trespass cases on the Coconino, settled out of court, have netted the U. S. Treasury the sum of $7,921.80.

Fire destroyed the sawmill owned by E. T. McGonigle, located on the Coconino seven miles west of Flagstaff. The mill was built in 1914 and had a daily capacity of 35 M ft. B. M.

Fire Lookout O. O. Barney was arrested on July 10 by Rangers Garland and Staggs of the Coronado for having venison in his possession. Barney pleaded guilty before Justice John Hackett of Pantano, Arizona, and was fined $50. His services as fire lookout were terminated the same day.

District 4

The Cottonwood Creek road will be constructed this year. An allotment of $6,000 from the 10 per cent fund has been approved by the Forester. There is urgent need for this road, as most of the old road was destroyed by the recent flood.

The cooperative survey of the Montpelier-Afton road on the Caribou will be started early in August. Approval of the project has been given by the Secretary.

District 5

Labor agents of the U. S. Department of Labor throughout California will cooperate with the Forest Service in recruiting laborers for any emergencies that may arise.

Austin G. Hadley, stationed at the Pilot Peak Lookout on the Stanislaus is knitting socks at the rate of one per day.

W. L. Allison, a grazing permittee who failed to extinguish a fire on his range allotment or even report its existence, has been given ten days to make a showing to the District Forester why his permit shall not be revoked.

A special forest fire fund of $2,900 has been provided by the Board of Supervisors of San Bernardino County, California. A portion of this fund is to be disbursed by Supervisor Charlton and to be used in protection of the canyon which supplies water for the irrigation of orange groves.

District 6

Amended articles of incorporation have been filed by Mitsui & Co., wit the Secretary of State, at Olympia, Washington, to permit the company to engage in shipbuilding and lumbering business in that State, in addition to its present operation of steamers in trans-Pacific trade. The capital stock has been increased to 100,000,000 yen. (A yen is worth about $1). The company is reported to be in negotiation for the purchase of a tract of Douglas fir valued at about $10,000,000.

T. P. Mackenzie, Assistant District Forester in Grazing, has resigned to accept a Government position in British Columbia. Decision as to Mr. Mackenzie's successor has not yet been reached.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

August 5, 1918.

Cooperation with the War Department

Colonel Graves has been appointed a member of the Lumber Committee of the War Department, which includes in its membership representatives from all of the bureaus, services, corps, etc., that are in any way interested in the use of wood. This committee reports directly to the General Staff. He was appointed on this committee as a result of a request made by the Secretary of Agriculture to the Secretaries of War and the Navy that the Forest Service be recognized as the agency for advice, assistance, and research on all questions about forest products and that a forest products committee with suitable representation be formed. The request was made in order to formalize the relation of the Forest Service to the War and Navy Departments and to provide for effective cooperation on research and other activities relating to forest products.

The Forester is also the member of the committee responsible for the full utilization of the resources of the Forest Service in cooperation with the War Department.

The question of full recognition has been submitted to the President, in connection with the transfer of funds to the Forest Service from the War Department. The attached letter shows the gratifying progress made up to the present time:

WAR DEPARTMENT
The Adjutant General's Office
Washington

July 27, 1918.

From: The Adjutant General of the Army.

To: Chief of Ordnance.

Subject: Consolidation of Bureaus.

Under authority conferred by the Act of Congress "Authorizing the President to coordinate or consolidate executive bureaus, agencies, and offices, and for other purposes, in the interest of economy and the more efficient concentration of the Government" approved May 28, 1918, the President directs that the following duties pertaining to the Director of Aircraft production and to the Chief of Ordnance be performed by the Forest Service of the Department of Agriculture:

Duties pertaining to Aircraft Production:

The research work relating to veneers, water-proof glues and coatings, kiln drying, propellers, airplane parts, and similar subjects especially applicable to the work of the Bureau of Aircraft Production, which is now being performed by the Department of Agriculture.

Duties pertaining to the Chief of Ordnance:

(1) The experiments and investigations in connection with packing boxes and packing, Bureau of Ordnance and

(2) The tests and investigation for boxes, crating, packing, etc., which are now being performed by the Department of Agriculture.

By order of the Secretary of War:

H. C. LEARNARD, Adjutant General.

The Lumber Industry

Important developments in plans for a study of the lumber industry in the Branch of Research and in the relations between the Forest Service and the various Government bureaus using lumber and other forest products and controlling their production, etc., have taken place during the past week. The recognition given the Forest Service by cooperative agencies opens up a wide field of usefulness. The following memorandum by the Forester indicates the provisions made for carrying out the study of the lumber industry:

The Forest Service has been called upon to undertake certain important studies in connection with the lumber industry, on behalf of the War Industries Board and the military branches of the Government. This work will be under the direction of the Branch of Research and will be closely correlated with the war work of the Forest Products Laboratory and the Offices of Forest Investigations and Industrial Investigations.

Mr. R. C. Bryant will have charge of all work in the East and will act as the representative of the western work in the necessary cooperation with the various agencies, governmental and private, in Washington. To aid in conducting the necessary statistical and field work in the East, the Section of Industrial Statistics will be placed under his charge. A portion of the force of Forest Investigations will also be detailed to him.

Mr. F. E. Olmsted will be in charge of the work in the West as the representative of the Washington office, with headquarters at San Francisco. The District Foresters will cooperate with Mr. Olmsted in making available to him such data as they may have and in detailing men to him so far as that is desirable, or in conducting work on his behalf.

The Office of Forest Investigations will continue to carry on its war activities in connection with projects relating to timber supply, production,etc., which are not essentially a part of the general study of the lumber industry. This office will also continue its work in connection with reconstruction problems, stimulating the use of wood fuel, and cooperation with various agencies, governmental and otherwise, within the field of science.

The initiation of the lumber industry study will in no way affect the field of work of the Forest Products Laboratory.

Cooperation with the War Industries Board:--The work in cooperation with the War Industries Board is especially important because this board is charged by the President with seeing that the efforts of the industry are fully adapted to war requirements.

Relationships are being developed with the Director of Lumber, the District Production Division, and the Statistical Division.

The following letter from the Director of Lumber indicates the character of the cooperation with these units of the War Industries Board:

War Industries Board,
Washington, D. C.,
July 26, 1918.

Col. Henry S. Graves,
Forester,
Washington, D. C.

Dear Sir:

I should be glad to obtain the assistance of the Forest Service in securing certain information of a statistical and economic character regarding the lumber industry. Of special importance are the following:

1. The current production and shipments of lumber by grades for the various producing regions, together with a statement of the stocks on hand; a comparison of this output with the normal and information as to its distribution and use.

2. The relation of labor, supplies and transportation to the above problem.

This information will be of service to this office in handling the various problems coming before it.

Very truly yours,

(Signed) Charles Edgar,
Director of Lumber.

Arrangements are under way to provide for effective cooperation between the field agents of the Forest Service and the War Industries Board through the Director of the District Production Division. This division is charged with keeping in touch with production in the field in all industries, which it accomplishes through its local District organizations.

In order to coordinate the work of the Statistical Division of the War Industries Board, the Bureau of Research of the War Trade Board, and the Division of Research and Planning of the Shipping Board, these bureaus report to Edward F. Gay, formerly the head of the Harvard School of Business Administration, who has been given general supervision over the statistical activities of the bureaus mentioned.

The Forest Service is developing independent cooperative relations directly with Dean Gay and with each of these organizations. This arrangement will provide that representatives of these agencies consult the Forest Service as a first step when they desire any information about lumber or any other forest products. This procedure will insure the use of information already on hand and the use of the existing Forest Service organization, and make unnecessary the building up new and duplicating organizations. There is a further possibility that a committee with representatives of these three agencies, the War and Navy Departments, and the Forest Service, will be formed as a further coordinating agency.

Cooperation with the Department of Labor:--Arrangements have been made to deal with the War Policies Board of the Department of Labor, of which Felix Frankfurter is chairman, through G. S. Arnold, formerly connected with the Forest Service. The War Policies Board is charged with standardizing the hours of labor, wages, and employment in the various Departments of the Government employing labor as well as with alloting and distributing labor to the various essential industries through the agency of the employment bureaus, National and State. Similar arrangements are being made to cooperate with the Employment Service of the Department of Labor, which controls the recruiting and distribution of unskilled labor for war production.

Biltmore Hotel, New York,
July 29, 1918.

Lieutenant-Colonel Graves,
Forester,
Washington, D. C.

Dear Colonel Graves:

Before leaving for England I wish to try and express to you a little of the gratitude I feel for the kindly courtesy and open-handed generosity with which I have been received by every officer in the Forest Service with whom I have come in contact. I have at once been made to feel myself at home, and no pains have been spared to supply me with information and assistance of any kind. Without such help, so freely given, my tour would not have been anything like so useful as I trust it will prove to be.

Of as much value as the mere collection of data about operations is the insight into the working of the Forest Service in America, and the becoming acquainted with so many of the officers in the Service. I have learnt in some measure what a lot there is for us Indian Forest officers to learn from you in

America. I could wish that I had been better qualified to represent India. Anyway, let the good impressions remain, but try and forget--or assume that it relates to me only--whatever has toned down the picture of the Indian Service as a whole. For it seems to me equally true to say that there is a great deal about our Indian Forest administration which it would be useful for men to know more about here.

The forests are so different, the people are so different, and the system of Government is so different in the two countries that it need be no matter for surprise that the two services have developed on such very different lines. The problem is, however, the same in both cases, and I believe it would be all to the good of both if there were more personal intercourse. After describing something of the long struggle we have had to improve our forests in India, the remark has more than once been made to me that I have been something of an inspiration to men who felt rather discouraged at the magnitude of the task before them in America.

I trust that the Government of India will not let matters rest with such a rare and exceptional visit as mine. I hope that the community of interests and the bonds of union between the two countries will be cemented by more frequent visits on both sides.

Yours very sincerely,
(Signed) F. A. Leete.

Mr. Leete, Conservator of Forests in India, spent about six months in this country as a representative of the British Government in the study of forest and lumber conditions. His itinerary covered the principal timber regions and many of the National Forests.

Mr. Leete gave particular attention to logging machinery with a view to possible use in the Indian forests, and acquainted himself with the administration of the National Forests.

Garment Workers Wanted

An urgent call has been made on the members of the Forest Service by the War Relief Association of the Department of Agriculture to assist in supplying special hospital garments for wounded men.

Hundreds of pairs of bed socks are wanted during August. This is in addition to day shirts and helpless-case shirts for men, dresses and undergarments for women, and clothes for the French orphans which the workers have been making for some time.

All necessary materials are supplied. Each article is cut out and full directions given. Models of finished garments are also available for inspection.

Members willing to ply a needle or run a sewing machine are requested to apply to Miss E. B. Stabler, who can be found in Room 417, Atlantic Building. Distribution of material is made daily between 1 and 2 P. M., except Saturdays.

Returned Old Publications

About ten tons of old Forest Service publications were dumped off on the sidewalk in front of the Atlantic Building during the past week. The shipment filled 173 mail sacks.

In the first excitement it was thought that the recent call in the Weekly Bulletin had brought a hearty response from Forest officers. Such was not, however, the case. The publications were wished on the Forest Service by the Superintendent of Documents. Several years ago the scheme was adopted of having the Superintendent control the distribution of all Government publications, each office concerned furnishing the necessary addresses. It seems now that the Superintendent has tired of his job and so there is a return to the old order of things whereby each office will take care of the distribution and mailing of its own publications.

The demand for old publications from the field continues, as the 173 sacks contained mostly publications of rather recent date. Some of them were left-overs from special large editions printed in anticipation of a clamant demand that did not materialize.

Washington Notes

R. S. Kellogg, Secretary of the News Print Service Bureau, New York, dropped in the past week to discuss the progress of the report covering statistics on production of wood pulp and the consumption of pulpwood for 1917. It is hoped to get the revised figures to the printer in about three weeks.

H. E. Surface is in town on a two-weeks' stay and will put in his time in connection with pulp and pulpwood. Mr. Surface has just made a round of the pulp and paper establishments in Wisconsin.

Findley Burns has received a commission as Captain in the National Army and is attached to the Office of the Chief of Staff, Division of Purchase, Storage and Traffic. His office is in the big building next door to the White House.

Madison Laboratory

Airplane wing ribs made of three-ply Spanish cedar are four times as strong, weight for weight, as the original solid ribs, according to extensive experiments carried on at the Laboratory during the past several months. To produce the best rib, the grain of the outer plies should run vertically and the grain of the core horizontally.

These conclusions were reached in connection with the tests made with the airplane wing rib testing device recently developed.

The experiments were made at the request of the Bureau of Aircraft Production to develop if possible a wing rib superior to the design now used in one of our battle planes. Tests of strength of original ribs were made to determine weaknesses, the weak points were reenforced and further tests were run.

By continually modifying the design so as to eliminate weak points, several types of ribs were developed much superior to the original. Certain fundamental principles of design were also definitely determined.

As a further test to determine whether the ribs of the new design will be entirely satisfactory in actual service, a number of wings are to be made up with these ribs and then broken by means of sand loading.

The Laboratory is also busy developing ribs of similar type to replace the solid ribs now in use in one of the Navy training machines.

District 2

Cooperative agreements for the Wind River and Buffalo-Tensleep construction projects in Wyoming have been forwarded to the State Highway Commission at Cheyenne for signature. Assurance has been given by the State Highway Commission that they will be signed promptly. Although the season is well advanced, it is hoped to complete about $20,000 worth of road on each of these projects during the rest of the season.

With the aid of the Osborn fire finder, relief maps have been completed for seven lookout stations on five different Forests in this District. The field men are enthusiastic over the new maps and think they will be of great help to them in locating fires.

M. W. Thompson, of Silviculture, has just returned from Minnesota. While on the Superior he met Mr. Carter, of the Washington Office, and discussed with him the marking policy and timber-sale contract for a proposed sale of 27 million feet of white, Norway, and jack pine, spruce and tamarack timber on the South Kawishiwi watershed on that Forest. Several inquiries regarding this timber have been received and a sale will undoubtedly result. This sale is of interest because it is the first large sale on the Forest which has not been made in connection with logging on private lands.

Logging on sales being out in connection with private operations will undoubtedly continue for the next few years at about the same rate as in the past. Timber sale receipts on this Forest are approximately $30,000.

Timber sales on the Minnesota Forest are at present on the increase. During the past year somewhat over $30,000 was received from the sale of dead and down material on the Ten Sections and Star Island. The cleanup from these cuttings was so complete that it is hardly evident at this time that any trees have been removed from the area.

There are several sales of dead and down seed trees in operation and applications have been received for several areas of jack pine timber on the Minnesota Forest. The lumber and box companies have applied for the jack pine and it is very probable that a permanent jack pine sale business will result. There is a very good demand for box material and the local box mills utilize material to a 4-inch minimum, making it possible to secure very complete utilization.

The sawmill of the Stevens-Barr Lumber Company on the Arapaho Forest was badly damaged by fire on July 27. Most of the buildings were destroyed. It is estimated that the damage will amount to about $30,000. The Stevens-Barr Company is one of the largest timber-sale purchasers on the Forest, having under contract with the Forest Service a sale of approximately 15 million feet. About a hundred men are thrown out of employment as a result of the burning of the mill.

District 3

E. N. Kavanagh, grazing inspector, has been transferred to District 6 to take up his new duties as Assistant District Forester in charge of grazing.

Mr. Kavanagh entered the Forest Service in 1906. Before coming to District 3 he had been Assistant District Forester in District 2 and later Forest Supervisor of the Bighorn Forest.

Definite decision as to the successor to Mr. Kavanagh in this District has not yet been made.

District 4

Larkspur eradication is under way on the Sevier. The stockmen interested have contributed approximately $250. About 12,000 sheep have been sheared on the three small shearing plants erected on the Forest. On account of the extreme dry weather it was found advantageous to erect these plants so as to avoid trailing and consequent losses.

District 5

Cooperative arrangements have been made with 126 individual owners controlling about 250,000 acres of timberlands, whereby the Forest Service assumes the detection and fighting of all fires that may occur. The lands are situated within the territory covered by the rangers of the Eldorado and Tahoe Forests. This protection is obtained at an average cost of 1½ cents per acre paid by the owners.

Mr. C. C. Moore, now at the head of the State Council of Defense for California, which has recently been reorganized, has created an "Advisory War Cabinet." The Food Administration, Red Cross, Liberty Loan, Forest Service, and other organizations are represented on this board.

The various County Councils are also to be reorganized and a number of Forest officers have been recommended for appointment to such County Councils.

District 6

During the past three months ambrosia beetles have done considerable damage to airplane-spruce logs and cants in the various spruce-producing sections of Oregon and Washington. Forest Examiner Jaenicke has already made a field examination at the request of the Spruce Production Division. Further work on the problem will be carried on in cooperation with the Bureau of Entomology.

An area of tall larkspur on the Goose Creek cattle range on the Minam, which has been annually causing a small loss of cattle for the past three years, was recently found by Grazing Examiner J. L. Peterson. The larkspur is to be eradicated by grubbing before the grazing season opens next year. Mr. Peterson states that much of the grazing range outside the Forests in eastern Oregon appears to have been overgrazed for many years past, judging by the disappearance of grass among the sagebrush. Plans are on foot to hold meetings in several of the important grazing counties this fall to organize county cattle and sheep associations, with the idea of outlining a plan for grazing management on the outside range. This work will be purely cooperative and the matter will be taken up with the county agricultural agents.

Forest Inspector E. E. Carter and T. T. Munger recently made an inspection of the West Fork Mill & Lumber Company timber sale on the Oregon. Cutting has just begun on this sale. Forty thousand feet are being taken out daily. About four miles of logging railroad have been constructed by the Company to make the timber accessible. This sale involves 330,000,000 feet, chiefly Douglas fir, and is the largest ever made in the District.

Proclamations have been issued by Governor Withycombe of Oregon and Governor Lister of Washington, calling attention to the great fire danger and warning campers and other Forest users to be especially careful in the use of fire. Posters bearing the proclamations have been printed and sent to the Supervisors for posting. Two slogans have been placed on the posters, printed in red: "All campers should carry shovels" and "Patriotic people prevent forest fires."

Miss Hazel Howard, of Portland, has been installed as District librarian to fill the place vacated by Mrs. G. L. Miller.

The most dangerous fire situation ever experienced in this District at this time of year has just been relieved by a general rain over most of the Forests of the District. A long drought, with considerable wind, made fires in all parts of Oregon and Washington especially difficult to handle. Cooperation of the War Department was necessary on account of a shortage of civilian labor, and several hundred soldiers were used in various parts of the District. All fires of the District, with one exception, are now either completely extinguished or under control. The Cispus fire, which burned over 40,000 acres on the Rainier, crossed the divide into the Lewis River country, on the Columbia, and threatened to go over the Yacolt burn of 1902. This fire is in an old burn in an inaccessible region, sixty miles from a railroad. No definite report has been received since the rain, but it is believed to be under control.

Lumberman E. C. Erickson has returned from a six-weeks' trip on the Tongass in Alaska, where he has been inspecting airplane spruce, check scaling on a number of sales, and visiting the mills cutting National Forest timber.

District 7

The administration of the Unaka and White Top Purchase Areas has been combined, with H. L. Russell in charge. Mr. Russell has for some time been in charge of the White Top Area with headquarters at Abingdon, Va. These headquarters will now be discontinued, Johnson City, Tenn., has been selected as the new headquarters. Mr. Bushnell, formerly in charge of the Unaka Area, will be in charge of timber sale work on the Forests in Tennessee and Virginia.

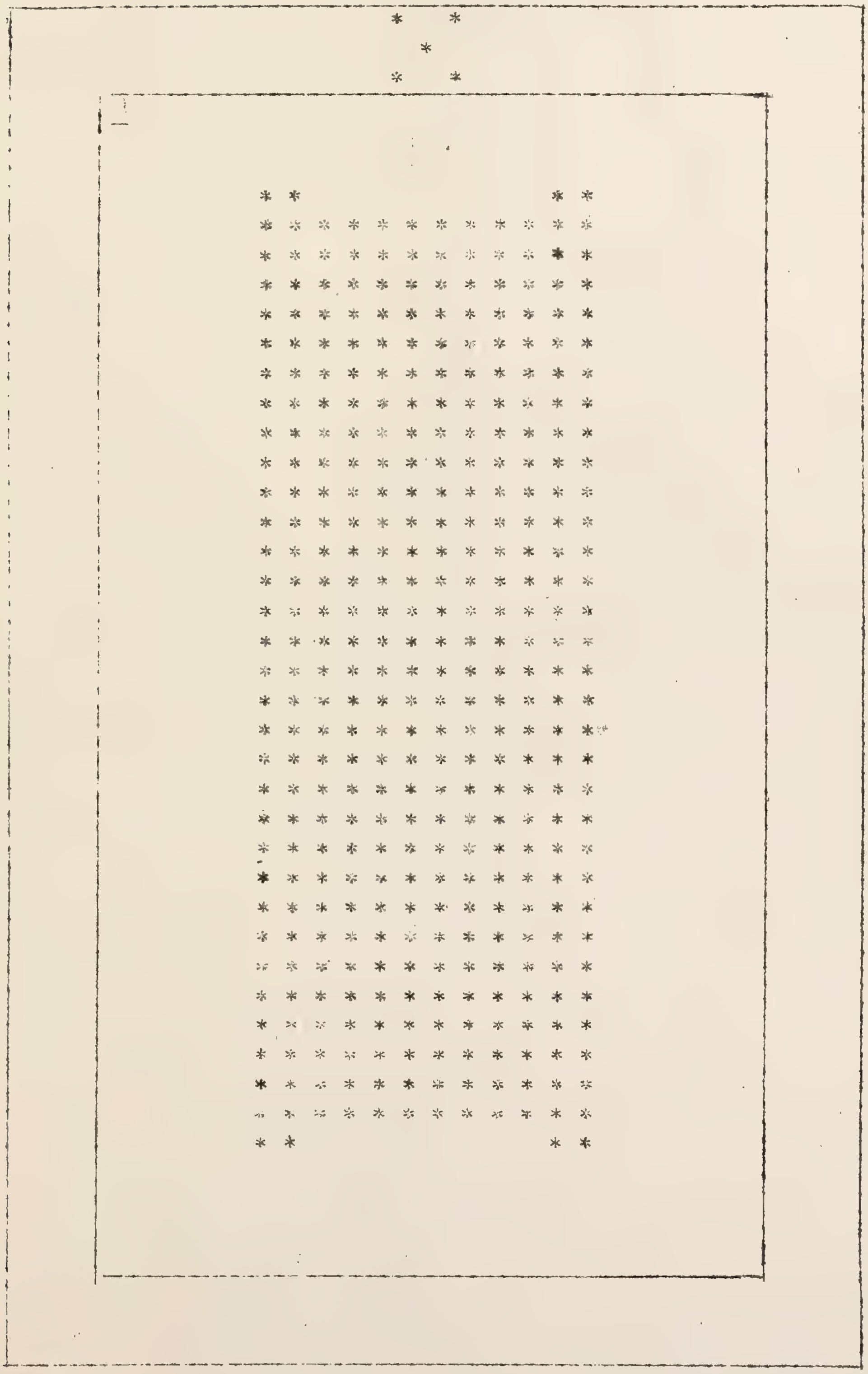
WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

August 12, 1918.

OUR SERVICE FLAG



THE TEST

The Forest Service has been put to the test during the past year as never before in its history. One burden after another has been placed upon it. The members of the Service have been called upon to overcome very great obstacles requiring grim courage and self sacrifice, as well as hard work, patience, and ingenuity. Before the war we were passing through a phase in which we were solidifying the positions gained by previous efforts, developing in detail National Forest policies, laying a foundation for sound business practice, and placing our research work on an effective basis.

The Forest Service found itself an accepted fact. Attacks upon the National Forest system were changing into support. We no longer had to devote so much time and effort to the struggle to prevent some action which might disrupt or greatly injure the National Forests. We found it possible to examine ourselves, study our organization, the personnel needs, improve our standards, and reach out for new ways to make our work count in the public interest. Plans were under way for more intensive studies of our organization and personnel with a view to possible adjustments to meet our present day needs, and plans also for constructive developments in a number of fields.

Then came the war. Plans were upset, new undertakings stopped, many current projects restricted, and our personnel greatly disturbed. Over 1,000 persons left the Service, entering the military service or resigning for other enterprises. Administrative officers lost many of their helpers. New and inexperienced men and women had to be trained for the work, and often it was not possible to secure helpers at all. An inelastic statute prevented adjustments of salaries to meet the new conditions of war cost of living and competition for men from private and from other public organizations. While pressure upon us relaxed upon certain points it was more than counterbalanced by increased burdens due to war demands.

The summer of 1917 was a serious forest fire season and it was necessary to pay the bills in part from funds designed for current work. We were called on to help the War Department in gathering information for war needs and help protect points in the Forests subject to possible enemy attacks. Increased needs for livestock production, complicated by severe droughts, placed a new burden on the grazing resources and required prompt and daring action; and now in this season still further calls are made on our force along similar lines. This is particularly true in the Northwest, where one of our worst fire seasons combined with labor shortage has put the Forest forces to a test of the most severe character.

On the research side war requirements of the most exacting kind have been placed upon us. We have met them and have furnished results satisfactory to the War and Navy Departments and the Emergency Fleet Corporation. Finally, the greatest test of all has been to stand at one's post, grimly carrying on all these activities, when in every heart there is the urge to get into the actual fight and to lend one's strength, his all, if necessary, to help overcome the German menace that is threatening everything that our country and our institutions stand for.

And the Forest Service has stood the test. It has been doing its work splendidly, heroically. I can see the collective efforts and results clearly; and every day stories of individual achievements come to me, and they make me proud of the force, deeply appreciative also.

It is fine for one to succeed when he has full support of competent helpers and adequate means to march forward in new activities and perfecting old ones. The greater test is to accomplish results in face of obstacles, devising ways of doing things with inadequate means, and getting away with what seems at first impossible situations. And that is what many of our force have been doing. We have been discovering reserve power we did not realize, capacity at unknown points, men of unproved power showing the ability of giants. Our force has been making the same kind of supreme effort as those nearer to the actual fight. And we have not yet reached the limit of what we may be called upon to perform.

Day by day the pressure grows more intense. I can see that we may be obliged to go still deeper into our possible reserve power, exercise even more critically our ingenuity to meet difficult situations. For the war will probably be a long one--we must not count on anything else--and that means constantly increasing concentration on war efforts.

The President himself in granting us funds from his war emergency appropriation recognizes the National Forests as a great national resource to be protected and utilized to the utmost even in the midst of war. The Secretary of Agriculture has constantly given full and cordial support. We may have to cut here and there on certain activities temporarily; we may have to modify standards of work; we may have to endure criticism for mistakes due to lack of man power and facilities. But we must continue our public enterprise, render the highest service possible under existing conditions, and hold ourselves ready to readjust our plans and return as soon as possible to the higher standards. And we must go forward with new constructive enterprises just as soon as the war is over. Let us always keep looking forward, studying our needs, always be ready and alert to meet whatever situation we may encounter tomorrow.

It is the time for the individual member of the Service to outdo all his earlier efforts. A time of heavy responsibility, it is also a time of unprecedented opportunity for development and achievement. Men of proved worth will grow yet stronger. Qualities hitherto unrecognized will stand out. New men will come forth. For many the time of test will be the time of triumph.

In certain cases recognition has already been given of the splendid efforts of the members of the Service. It will be my earnest endeavor to secure further readjustments, many of them statutory, such as are necessary to meet the urgent demands of our present situation. The Forest Service is an essential part of the war. Let each one do his part in making possible a complete victory.

HENRY S. GRAVES.

Service Flag of the Forest Service

The Service Flag floating from the Atlantic Building shows 385 stars for members of the Forest Service who have entered the military service.

Five gold stars, for the men who have made the supreme sacrifice, are in memory of

Charles E. Simpson
Roy Muncaster
S. N. Augspurger
H. H. Harvey
Horace B. Quivey

Money for the Fire Fund

The President has authorized a loan to the Forest Service for fire-fighting expenses of one million dollars from the $50,000,000 special emergency defense fund placed at his disposal by Congress.

This is a very significant action, for it recognizes the work of the Forest Service as essential war work.

The financial stringency due to the failure of Congress to pass the appropriation bill for the current year and the unusually severe fire season is now satisfactorily ended.

Appointed Acting District Forester

F. W. Reed has been designated Acting District Forester of District 7 with full responsibility pending District Forester Hall's return to the Office or the appointment of his successor. Mr. Hall is engaged on special work in the Office of the Forester to which he is giving all his attention.

More Publications Returned

Acknowledgment is made of the receipt in Washington of old Forest Service publications forwarded from the field in response to the recent request in the Bulletin. The following Forests are represented in the shipments received to date

Durango National Forest returned 168 publications
Piko " " " 11 "
St. Joe " " " 20 "

It is hoped that this is only a start and that other shipments will come in from other field officers.

More Statistical Comparisons

The annual statistics permit of many interesting combinations, comparisons, and manipulations. The following is the latest submitted and shows receipts per acre as an offset against the previously published tables showing the total receipts.

District 7 proudly leads the way, putting District 6 in the last place. Plans are under way to prepare additional tables with the hope of satisfying the other Districts that have so far failed to shine in first place.

	Acreage	Timber Sales Receipts	Timber Sales Receipts Per Acre	Total Receipts	Total Receipts per Acre
D-7	2,433,569	$ 82,126.25	$0.0337	$106,376.95	$0.0437
D-3	19,039,459	276,979.07	0.0145	706,639.86	0.0371
D-2	20,185,971	219,733.68	0.0108	570,723.87	0.0282
D-4	28,536,042	62,897.00	0.0022	590,446.95	0.0269
D-1	22,614,511	253,216.62	0.0111	532,055.31	0.0233
D-5	19,055,805	209,817.77	0.0110	434,986.83	0.0228
D-6	44,062,210	415,096.30	0.0094	633,700.30	0.0143

District 7 calls our attention to the fact that on an acreage basis the District is doing three times the timber sales business of its nearest competitor, without really having gotten started.

Assistance to District One in Fire Fighting

The fire emergency in District One created a condition which necessitated calling on other Districts for help. Unprecedented dry weather together wit numerous dry electrical storms sprinkled the backwoods with fires which rapidly grew to Class C proportions. The long stretches in the Idaho and western Montana Forests where no trails exist made the problem very difficult. The number of fire (about 200 lightning fires in ten days) was entirely too many for the ordinary smoke chaser organization to handle. All the District One forces were mobilized but still there were not enough Forest officers for overhead.

Naturally we appealed to our neighbors in Districts 2 and 4 for hel and it was granted. The following Forest officers came to the rescue in July, and most of them are still on the job:

From District 2	From District 4
McLaren	Humphrey
Hutchinson	Rice
Blaine	Buchanan
Klieber	Smith
Jenson	Schumacher
Weiho	

In addition we nailed Mr. Waha of the Washington office and only wished some more Washington office men would drift this way.

All the men buckled right into the harness; the fire fighting game was not new to them and fire fighting in western Montana and Idaho is not very different from the practice on other National Forests. At any rate we found there was

very little that we could teach these men about the art, and District One gratefully acknowledges the great assistance rendered by the men from other Districts. A rain the latter part of July gave us a breathing spell, but all weather indications point to a resumption of activities on the former scale within a very short time.

JOHN F. PRESTON.

Coal Land Leasing in Wyoming

Approximately $420 per acre has been paid into the Treasury of the United States by the Owl Creek Coal Company, which is operating under lease coal lands at Gebo, Wyoming, according to the report covering the first five years of operation.

During this period one million tons of coal were extracted and royalties paid to the Government amounting to over $65,000.

Much interest attaches to the report made by the Bureau of Mines, as the Gebo Mine is the only large mine in which the coal is leased by the Government to private operating concerns.

The first five-year period of the lease has just expired. On the basis of the entire leasehold of 2,560 acres, the returns to the Government average $25 per acre. Actually, however, the returns are higher because the one million tons were extracted from about 218 acres, or at the rate of 37 acres per year.

At the present rate of operation the entire leasehold will not be exhausted for 65 or 70 years.

The highest monthly output was reached in December, 1917, when 28,757 tons were mined.

The safety regulations in force have seemed to work out very satisfactorily. The operators were required to use permissible explosives and during a period of three years 160,000 pounds were used and 125,000 holes shot without the occurrence of a single accident.

Labor conditions at the mine are also of interest. Since September, 1914, day labor has increased from 50 to 60 per cent, contract tonnage rates from 20 to 40 per cent, and shooting and loading 38 per cent. In the meantime rents, coal, and water charges have remained practically stationary. The steady work has attracted labor and the labor turn over has been but 15 per cent as against from 50 to 125 per cent in the mines in the Butte District in 1917 and spring of 1918.

All classes of contracting labor are earning $7 or more per shift. Checks for $200 per half-month are frequent, while men working on coal-cutting machines average from $300 to $400 and over per month at 8 hours per day.

War Brevities

The Mississippi Legislature has passed a bill exempting from taxation for a period of five years all wood distillation plants that may be built in the State. The purpose of the bill is to encourage the wood distillation industry in Mississippi. The measure will affect pine more than hardwoods, but there is much hardwood in the State that might be used in destructive distillation.

A census of cooperage stock production for 1918 will be made by the Forest Service in cooperation with The Associated Cooperage Industries of America. Both tight and slack cooperage will be considered. The last census of the production of cooperage stock was made in 1911.

All mohair from the domestic clip for the fall of 1918 is to be taken up by the Wool Division of the War Industries Board. The price to be paid will be determined later. The notification that has gone out merely indicates that the Government will require the mohair.

The desirability of using mohair in the manufacture of certain cloth for army use was brought to the attention of the War Industries Board some time ago by Mr. Chapline, who has made a special study of goats.

The mohair situation has not been very satisfactory during the past two or three years, as the advance in price has not been commensurate with the prices now being paid for other materials used in the manufacture of cloth.

Washington Notes

Colonel Graves has left Washington for an extended western trip. The first stop will be at Livingston, Montana, where Colonel Graves will meet District Forester Riley for a consideration of the elk situation and will also look into the questions raised by the recent efforts to make additions to the Yellowstone National Park by additions from the Teton Forest.

The death of Rev. George V. Fowler occurred at Washington last week. Rev. Fowler served as watchman for the Forest Service for almost twelve years and while so employed attended Howard University in this city; later he studied for the ministry and had just obtained his priesthood in the Episcopal Church. He resigned from the Forest Service in the fall of 1916 and has been in charge of a church in the city ever since.

R. C. Bryant has started out to make a roundup of the secretaries of the various lumber associations in the South and Lake States, in connection with the newly organized study of the lumber industry. Mr. Bryant will be gone several weeks and will give his first attention to establishing cordial relations with the associations and giving to them a complete understanding of the proposed study. Plans will also be made to coördinate the efforts of the various associations, so that statistics and information supplied will be uniform and in shape for use by the Forest Service.

F. E. Olmsted, who is in charge of the work on the Pacific Coast, has left for San Francisco and on his arrival will at once get into the work.

District 2

Range conditions throughout the mountains of Colorado are very favorable and stock are in excellent condition. Considerable stock which conditioned early was put on the market during June and July, especially from the North Park region. Stockmen have been attracted by the excellent summer prices, and grass steers that were wintered well have brought as high as 16½ cents. At this price it does not take much of a steer to bring from $150 to $200. There is a feeling in places that while the stockman has feed to carry him until fall he can not afford to take a chance on the lower fall prices although his animals might then weigh more and be of better quality. In some sections breeding stock is becoming less popluar and many dry cows which should be held over are disposed of as fast as they get in marketable flesh. From the standpoint of beef production this should be a subject of interest to the Food Administration and to those investigating the livestock markets.

The hay crop will not be quite as heavy as usual, according to general report. There has been considerable difficulty in getting help to put up the hay. Heavy rains in certain localities have interfered with the putting up of alfalfa. Hay hands are getting from $3.50 to $4.50 per day with board, and stackers are receiving an average of about $1 a day more.

About six miles of road on the cutoff between Lake George and Denver between the town of Lake George and the present road from Florissant to West Creek have just been completed. Final cost figures are not yet available, but it is estimated that the work will not greatly exceed $500 per mile. The location survey on this project will be approximately $30 a mile. The crew is still in the field and it is estimated that approximately an equal mileage will be completed between Florissant and West Creek.

The tractor outfit which we started out last spring has covered about 150 miles of road. The counties are very much pleased with the kind of work that is being done and are already making requests for similar agreements for the coming year. At the urgent request of Teller County about nine days' work was done on the Florissant-Colorado Springs road. The tractor and grader operating with two men graded approximately 1½ miles. The road as graded was about 28 feet wide and three fills were put in, the largest of which was 75 feet long and 6 feet deep. This experiment clearly demonstrated the possibilities of equipment of this kind on road construction work.

The Bureau of Animal Industry has requested current reports on unusual stock losses. By this is meant either radical losses occurring within a short period or consecutive losses in small numbers, indicating some persistent malady in the animals. The Bureau is strongly of the opinion that many of our losses attributed to poisonous plants and other causes might be due to the presence of some special disease. Many post mortem examinations made in the past few months have shown hemorrhagic septicemia, and it is believed that a considerable percentage of the losses occurring at the present time may be due to this disease. The policy of the Bureau will be to make prompt investigation of all reported losses, as far as it is within the power of the local office to do so. There was a striking example of the presence of this disease in a shipment of 41 cars of fat lambs received in the Denver market on July 13. A considerable number died en route and they kept on dying after reaching the market. Post mortem examinations showed the presence of hemorrhagic septicemia without question. It can be controlled by vaccination.

Scarcity of Forest Clerks has made necessary an office rearrangement at Glenwood Springs where the offices of the Holy Cross and White River Forests are located. Forest Clerk Mahurin will act as clerk for both the Holy Cross and White River Forests and a stenographer will be assigned in each office as assistant. Mr. Mahurin will look after property, accounts, and general routine for both offices. Forest Clerk Montgomery has been transferred to Grand Junction to take the position of clerk on the Battlement.

Securing men for positions on the Forests has, according to Messrs. Merrell and Carroll, become great sport in the Denver office. The daily visitations of men seeking employment number on the average about half a dozen. Out of these there is occasionally one who, it seems, might be suited for a ranger position. After interviewing various and sundry of them, who come back day after day anxious to get a job, selection is finally made and the man instructed to report for duty. The usual result is that he disappears and is never seen again. Three men were "hired" to take a job on the Shoshone Forest and all of them immediately "dropped out of sight." Supervisor Allen was thereupon wired and a release requested from the agreement to find him a man. Allen has so far stood pat and the game is therefore still on.

Not to be outdone by the Harney Forest in having a lady lookout on Harney Peak, Supervisor Higgins of the Nebraska Forest has hired two girls for weeding in the Bessey Nursery. He reports that they do as much work as the boys employed on this job.

The revised report from Supervisor Hilton on the May 16 fire shows that 3,170 acres of land, of which 1,940 acres was Government land, were burned over on the Michigan Forest. Of this land, 305 acres was planted in 1914 and 1915 at a cost of $1,287. The remainder of the Forest land burned over contained a growth of brush or jack pine reproduction. The fire is supposed to have been started by a careless fisherman. A high wind caused it to jump two fire lines, one of which was 150 feet wide and cleared of all brush and inflammable material.

District 3

Other Districts have, one by one, boasted vaingloriously of their unique and unexampled daring in having women lookouts. Miss Hannah Crosby has spent the whole of the present fire season on Old Baldy, the highest peak (11,500 feet above sea level) of the White Mountains on the Apache Forest. She not only did very effective work but liked the job, even though she was stationed 12 miles from the nearest neighbor.

Assistant District Forester Don P. Johnston has gone to Madison on special assignment in connection with the war activities of the Laboratory.

That incendiarism on the Sacramento Division of the Lincoln is still a live subject is shown by the eight fires extinguished by Ranger Wingo and Guard Stephens on June 29th, all of them located along a line less than 350 yards in length. Quick work on the part of Wingo and Stephens prevented what might easily have been a serious affair. No clues have been found which might serve in identifying the guilty parties.

The most important trail on the southern Apache traverses the bed of the Blue River. Leaving Clifton for the Baseline Ranger Station one starts up the San Francisco River, fording it 45 times to the mouth of the Blue and crossing the Blue 71 times before reaching Baseline Ranger Station. Between Baseline and Blue Ranger Stations, the river is crossed 92 times and from Blue Ranger Station to the forks of the Blue, where the Christy stull sale begins, it is crossed 57 times. In the 116 fordings in one day from Clifton to Baseline Ranger Station in a distance of 35 miles during times of normal river flow, one's feet get wet more than 100 times unless one is accustomed to "monkey drill." Is there a wetter river in District 3, or any other District for that matter?

District 4

Five cans of black bass from the U. S. Bureau of Fisheries, containing approximately 625 fish ranging from 1½ to 4 inches in length, have been planted in Panguitch Lake. Despite the long trip from the railroad station, which consumed about 36 hours, only 12 fish died in transit. The waters of Panguitch Lake are now infested with chubs (suckers), due to a mistake in a shipment of fry for restocking purposes made several years ago.

Lightning recently struck into a band of about 1,250 old sheep on the Wasatch Forest killing 504 head outright. About 400 head were yearlings and two-year-old ewes. The lightning was forked and made two streaks of dead sheep across the bed ground, leaving a space in the center where no sheep were killed. The loss is estimated to be about $10,000. The herders who were sleeping about 200 feet away away escaped unscathed.

A shipment of early lambs by a permittee on the Payette Forest topped the Omaha market recently, weighing 75 pounds and bringing $18.75 per cwt.

The Manti Forest can not understand the following ad which appeared in a local paper, since they insist they have no "colored" Rangers on that Forest:

> "LOST:--One black Ranger's notebook on canyon road containing soil weights. Finder please return to U. S. Forest Service. Reward."

District 5

California is convinced that the claim of District 2 to first "blood" in the finishing of land classification was obtained by the aid of sabotage. The classification work in this district was finished before that of any other of the districts, except for the Klamath Forest. Five men have started in at various times on this Forest: One was transferred, one resigned, and two were seized with appendicitis. On the theory that lightning should not strike the same place twice, it is clear that the appendicitis germs must have been shipped into the Klamath for this express purpose by the district which wanted the championship in the land classification work.

District Engineer F. H. Fowler has received notice of his commission as Captain in the Engineer Reserve Corps and is assigned to active duty at Washington, D. C.

Fully 80 pounds of honey, worth about $24, have been produced by the bees presided over by Mr. Brothers, of the District Office. Mr. Brothers maintains the apiary in his backyard garden at Berkeley. His total investment to date is only $18. In addition to the honey, which he has used on the family table as a sunstitute for sugar, he has sold surplus bees to the value of $23.00.

Homesteaders occupying lands within the area recently released from the Round Valley Indian Reservation to the west of the California Forest are having a hard time. Much of the excluded land not owned by settlers has passed under the control of a few individuals who are now fencing long-used roads and other lines of travel on which the settlers are dependent. Many other efforts at intimidation are being used, all apparently to drive out the settlers. The use of fire in this connection has brought some of the men engaged in this work in conflict with Fire Inspector Brereton, who has secured the conviction of one incendiary.

This year's seed crop of yellow pine is unusually abundant in California and an effort will be made to obtain a three-years' supply.

Logs cut on the 250 million-foot sale on the Lassen Forest are now being shipped to Susansville to the new mill of the Lassen Lumber and Box Company. This sale is of interest because it is the largest made in the district during the past year.

The leaves of the Southern California Spanish Bayonet (Yucca whipplei) are claimed to furnish a fiber equal to Yucatan Sizal for binder twine, and inquiry has been made by the Yusi Fiber Company at Los Angeles as to the possibility of purchasing Yucca from the Southern California Forests. It is also planned to utilize the heads of the plants as stock feed.

Eight hundred sheep out of three bands on the Mono Forest were recently lost through poisoning. Suspicion rests on a sheep owner of the vicinity but nothing has been proved. Considerable excitement prevails locally and the Service is making an investigation.

Construction work on the Trinity River road which was about to be closed down on account of labor shortage will probably go ahead as originally planned, since men are returning from grain harvesting and are again available for road work.

Ten thousand dollars has been allotted for the repair and maintenance of the Klamath River road between Seiad Creek and the State Highway near Hambroch. This is a war measure to facilitate the transportation of chrome ore. No expenditures will be incurred, however, until the agreement covering tonnage charge and traffic regulations is signed by the operators.

District 7

Acting District Forester F. W. Reed made his escape from the hot weather in Washington through the fortunate circumstance of finding that his plan of work called for an inspection of the White Mountain Forest. Mr. Reed did not confide to anyone as to the probable length of *his absence from town, but the guess is hazarded that he will find enough matters necessitate careful inspection to postpone his return until the weather is more satisfactory in Washington.

Assistant District Forester Stabler has returned to town from a field trip to Tennessee in connection with the recent consolidation of the White Top and Unaka Forests.

*to

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

August 19, 1918.

Faces to the Front

Assistant Secretary Ousley sent the following note to Secretary Houston recounting an incident that occurred in Texas:

On a recent visit to Texas I stopped at Marshall on my way to College Station to rest on Sunday, July 21, with a friend who is the pastor of the First Baptist Church there. I was not altogether surprised when he insisted that I should say something to his congregation at the morning service, but I was surprised to have an urgent call from a camp meeting eighteen miles away, to speak there in the afternoon, and I was very reluctant to go, because I was tired, but I could not refuse a call from a group of farmers in my own State. I asked the messenger who brought the invitation whether it would be proper for me to say anything regarding the agricultural problem, and he assured me that the people regarded the agricultural program as a part of the war program, and that I would be at full liberty to speak about it as I might see fit.

I reached the meeting just as the congregation had arisen for prayer. The minister prayed with great fervor in the usual way of evangelical petition and the congregation responded with fervent amens coming from every quarter of the tabernacle. There had been several conversions at the morning service and the air was electric with spiritual rapture. After the usual plea for the continuing presence of the Holy Spirit, the minister prayed for our army and the congregation continued with earnest amens. He asked for victory to our arms and for our righteous cause, and he asked that our boys might return whole in body and mind and soul. The amens came in a great volume of heart-swelling emotion as the mothers and fathers thought of their sons. Then the minister dropped his voice and said with humility but with adamant resolution: "But, Oh Lord, if they must fall, let them fall with their faces to the front." There was a moment of silence in the congregation, and then there came in a deep chorus, with a sob, "Amen."

When mothers and fathers in remote districts, away from the sound of the fife and drum and the sight of warships, airplanes and marching parades, can say amen to the courageous death of their sons, we need have no fear that the plain people of the United States will fail in the resolution to sustain our cause to the utmost.

(SIGNED) CLARENCE OUSLEY,
Assistant Secretary of Agriculture.

Tonnage for the Shipping Board

That the Shipping Board has full appreciation of the weightiness of the information obtainable from the Forest Service was demonstrated during the past week.

Weber and Hoyt were given a hurry call in the morning to prepare a brief resume of the African mahogany situation, not to exceed one typewritten page. Delivery had to be made to Dean Gay and Mr. Hurley by five o'clock that afternoon. Work was begun at once. Shortly before five Weber and Hoyt realized that delivery could not be made on time if they were to rely on their legs or the spasmodic skip-stop street-car service.

A messenger was called, urgency of the situation explained and instructions given to have an automobile ready a few minutes before five to rush the report to the expectant Gay and Hurley.

At five minutes of five Weber and Hoyt, with the finished report in hand made a wild dash for the door, called frantically for the automobile, and were directed to a waiting truck that had been backed to the walk, as being the machine responding to the call.

Speeding time permitted of no further delay on the part of Weber and Hoyt; so they loaded the one-page manuscript aboard the truck and then personally

escorted it to its destination. They arrived on time.

Secretary Sustains Forester in Grazing Appeal

Secretary Houston has sustained the Forester in a complicated grazing case that had been carried to him on appeal. The decision establishes clearly under certain conditions the status of corporations and stockholders in corporations holding permits on National Forests.

The Idaho and Weiser Forests were interested in this case as the appellants are permittees on both Forests.

On the Idaho Forest, which has a maximum limit of 7,000 sheep, grazing applications were received as follows:

Denbrae Sheep Co.	1,890	sheep
Brownlee Sheep Co.	3,600	"
R. N. Stanfield, individual permit	3,663	"
	9,153	"

On the Weiser Forest, which has a maximum limit of 5,000 sheep, grazing applications were received as follows:

Denbrae Sheep Co.	4,700	sheep
Brownlee Sheep Co.	2,000	"
R. N. Stanfield, individual permit	1,200	"
	7,900	"

Mr. Stanfield is also stockholder in the Denbrae and Brownlee companies.

On the Idaho Forest, the Denbrae Sheep Company came as an old permittee, the Brownlee Sheep Company as a new applicant holding a waiver covering the purchase of 4,500 sheep from another company. Mr. Stanfield is an old user.

On the Weiser Forest the Denbrae Company was also an old permittee, and the Brownlee Company a new applicant with a waiver from the Oxman Cattle Company, covering the grazing of 800 head of cattle which they desired to replace with 2,000 head of sheep.

Mr. Stanfield is likewise an old user on the Weiser Forest.

The Supervisor of the Idaho applies the following provision of Regulation G-14:

> For all purposes of permanent allotment each member or stockholder of a firm or corporation will be considered as holding a permit to graze the full number of stock covered by any and all grazing permits issued to such firm or corporation. The individual permit of a person who acquires an interest in the permit of any firm or corporation will be subject to reduction in its renewal when the combined number of stock covered by all permits in which the person is interested exceeds the maximum limit.

Accordingly the application of the Denbrae Company was approved in full (for 1,890 sheep), that of the Brownlee Company for 3,600 sheep, which was the correct number after the usual 20 per cent reduction and the personal application of Mr. Stanfield for 1,500 sheep. The total amount approved for the three permits thus equalled the maximum limit for the Idaho Forest.

On the Weiser Forest the application of the Denbrae Company was approved in full for 4,700 sheep. The Brownlee application was disapproved in full, as the Supervisor refused to place sheep on a strictly cattle range. There was no other sheep range available on the Forest. The personal application of Mr. Stanfield was approved for 230. This brought the total approved to the maximum limit for the Forest.

In taking action on the Brownlee application on the Weiser, the Supervisor considered the Company a "new corporation" under the provisions of the instructions under Reg. G-14 reading:

> Grazing permits will not be issued to new firms or corporations when the members or stockholders of either such firm or corporations hold permits to graze numbers of stock, which combined exceed the maximum limit established for the Forest.

The attorneys for Mr. Stanfield contended that action on the Idaho should have been similar to that on the Weiser and that the Brownlee Company was as much a new corporation on the Idaho as it was on the Weiser, and that the Forester's instructions rather than the regulations should govern in both decisions. This contention was advanced because Mr. Stanfield was anxious to have the reduction fall on the companies rather than on him.

The Secretary stated, in announcing his decision, that where there was an apparent conflict between a regulation by the Secretary and the instructions by the Forester, the former must be followed, for the regulations have the full force and effect of law.

The attorney for Mr. Stanfield also argued that G-14 and G-17 must be read together in order to obtain a proper definition of the word "interest" in Regulation G-14. The contention was that because Reg. G-17 provides that a corporate permit will not be renewed if 20 per cent of its stock has been transferred to anyone holding a grazing privilege, it was not proper to bring Mr. Stanfield within the penalty of the regulation as his interest in the companies was less than 20 per cent.

The Secretary declared this position not to be well taken, saying:

> "The two regulations are designed to apply to two quite different phases of the problem of preventing monopoly of National Forest range;" and that "the first part of Reg. G-14 shows as plainly as ordinary words can that an 'interest' in the permit means 'each stockholder' entirely regardless of the number of shares held, etc."

District 4 Rallies to the Weekly Bulletin

District 4 has discontinued the publication of the Intermountain Review-Ranger. The reasons for this action were set forth by District Forester Kneipp in a circular letter to the members of District 4. Mr. Kneipp feels that the various Forest and District publications are valuable in disseminating throughout the Service interesting information dealing with the activities of our organizations and in promoting esprit de corps. In announcing the discontinuance of the District 4 publications, Mr. Kneipp had the following to say to the members of his District:

> "All of them have succeeded, in some degree, in accomplishing these objects. As far as the Intermountain Review-Ranger is concerned, we have found it to be quite cordially welcomed throughout the District, and undoubtedly it has done more or less good. Our idea has been, however, that these scattered efforts on the part of the District and Washington offices are not the most effective and economical means of meeting the situation, and that eventually they should be superseded by a strong, centrally issued Service publication which could enlist the enthusiastic support of the entire organization and cover, much more successfully and at considerably less expense, the entire field.
>
> "With the idea that it would be a step toward this desirable end, and with a view to economizing as far as possible in the use of paper and other materials which enter into the preparation of a publication of this sort, it has been decided to suspend indefinitely the issuance of the Intermountain Review-Ranger, and at the same time strongly urge every individual member of the District organization to lend his or her enthusiastic, loyal support toward the development of the Weekly Bulletin published in Washington.
>
> "It is not enough to merely cordially welcome and appreciate the Bulletin when you receive it. The success or failure of any project of this kind depends much more upon the degree of active support given by the individuals on the circulation list than upon editorial ability at the other end, and active support means contributions of material.
>
> "Don't lie back and 'let George do it.' Don't say you have nothing of interest to submit. Don't say you cannot write well enough to burst into print in a publication of this kind. Take the other attitude - consider the Bulletin as a project in which you have a direct personal interest -- get in and help make it grow to serve the purpose for which it was established.
>
> "If the individual member of the Service will do his proper share, there isn't a reason in the world why the Forest Service Weekly Bulletin * * * * * * * will not excel in interest the ordinary magazine because of its more direct personal touch."

The Editors of the Weekly Bulletin feel highly gratified by the above action and hope that the members of District 4 will develop into contributors to the Bulletin to the same extent they did for their own publications. The Weekly Bulletin needs such assistance to fill the field it has selected.

Falling Snags Kill Fire Fighters

Bob Benham, Forest Guard at the Eden Valley Ranger Station, Siskiyou National Forest, Oregon, and Melvin Murphy, fire fighter, were killed by falling snags while engaged in fighting a forest fire.

Benham and Murphy are oldtime mining men in the Cow Creek country and have been mainstays for the Forest Service in troublesome fire times.

More Old Publications

During the past week old Forest Service publications have been received from the following Forests:

St. Joe	95	publications
Pike	50	"
Rio Grande	121	"
White Mountain	181	"
Apache	48	"
Harney	136	"

Suggestion is made that senders include a memorandum indicating the name of the contributing Forest in order that proper acknowledgment may be made.

Policy Governing Highway Construction

The construction and maintenance of highways during the war will be governed by the policies formulated by the Highways Council. The Council is composed of one representative each from the War Department, Department of Agriculture, the U. S. Railroad Administration, the War Industries Board, and the Fuel Administration. Logan Waller Page, Director of the Office of Public Roads and representative of the Department on the Highways Council, has been elected its Chairman.

First consideration will be given to maintenance with a view to conserve if possible all the highways already completed.

Reconstruction will be favorably considered by the Highways Council only where it is clearly established that maintenance is no longer possible except at prohibitive cost.

New construction will be given consideration by the Council in the following order:

(1) Highways and streets of military value.
(2) Highways and streets of National economic value.
(3) Unfinished contracts involving contractual obligations (incurred prior to April 5, 1918, where bond issue is involved) which may not be disturbed without consequence;
(4) Streets and highways which although not of National economic importance are of such extreme local importance or the construction of which has progressed to such a point as to cause serious hardship if their construction or completion is postponed.

The Council defines military and National economic value as follows:

(a) A highway of military value is one used regularly for the transportation of military supplies in considerable quantity, or for the movement as an established practice of army truck trains, or which is essential to the efficient operation of a military cantonment, post, or plant. Strategic highways are not included in this definition as this phase of military operations is entirely outside the province of the Council.

(b) A highway of National economic value is one which serves or will serve, if properly improved, directly to promote the welfare of the Nation and not merely the local welfare. As examples it may be stated that in this class would be placed (1) highways which although not directly used for military purposes yet serve to help win the war by greatly facilitating the output or movement of war munitions and supplies; (2) highways which can clearly be shown to relieve congestion on

railroad lines in a territory which is actually in need of such relief; (3) highways which give access to or promote the output of natural products needed by the Nation to a marked degree; (4) highways which further housing operations undertaken by the Federal Government or by other agencies with the approval of the Federal Government would justify at times this designation.

Road projects on the National Forests will be handled to conform to the policy as set forth. This means that there will be very little road construction work on the National Forests and then only on roads that are vitally necessary to the protection of the Forest resources. Maintenance work will probably be continued to an ever greater extent than at present. Some reconstruction work will probably also be necessary.

July Receipts Show Increase;

National Forest receipts for July amounted to $154,953.09, showing a net increase of $20,631.09 over the receipts for July 1917. The increase comes mainly from timber sales, which show an increase of $18,668.66. Grazing trespass contributed $10,557.64. The principal decreases occurred in grazing, water power, special use, and turpentine sales.

640-Acre Designations

The Secretary of the Interior has designated approximately 600,000 acres in Wyoming between Cheyenne and Douglas under the 640-acre law, and about 145,000 acres in southern Arizona.

The areas in Arizona are contiguous, in scattered units, to the Coronado Forest. The greater portion of the designated area almost surrounds the Chiricahua Division of the Coronado Forest.

Lands for the Returning Soldier

The Secretary of the Interior has designated the Reclamation Service as the Bureau to make the investigation as to the possibility of providing land for the returning soldiers for which work Congress appropriated $100,000. Elwood Meade will be the Engineer in Charge.

Present plans do not contemplate any field work. It is planned to compile all available data on cutover lands, swamp lands, and irrigation projects in the West, as a basis for probable legislation.

It is as yet impossible to forecast the extent to which the Forest Service will be drawn into this work.

College Wants Instructor in Forestry

An instructor in forestry is desired at the Agricultural and Mechanical College of Texas. The position will pay $1,500 with chances for promotion to Assistant State Forester. The forestry courses offered are elementary in character and will require about one-half the time of the instructor during the school year. The remainder of the time will be devoted to routine office work in connection with the enforcement of forestry laws and to investigative work in forestry problems in Texas.

Detailed information may be obtained on application to E. O. Siecke, State Forester, College Station, Texas.

Washington Notes

Associate Forester Potter has returned to town after a three months' trip which took him to Districts 1, and 4.

Inspector of Grazing James T. Jardine is now in the West on a general inspection trip which will probably cover several months. Mr. Jardine made his first stop at the Wichita Forest.

District 1

The month of July was one of the warmest on record, with subnormal precipitation. The first local storms occurred on July 23. Later they increased in number and by July 27 became so general that they assisted materially in the control of the fires then burning.

An unusally large number of lightning fires occurred during the month, as most of the thunder storms were accompanied by little or no rain. One hundred and ninety-six fires were discovered between July 10 and 20.

The fire record for the month shows the following causes:

Railroad	47
Campers	60
Brush burning	29
Lumbering	1
Lightning	368
Incendiary	6
Miscellaneous	9
Unknown	47
	567

Fire suppression cost about $255,000 and the end is not yet in sight, for about four to six weeks of the most dangerous fire season is still to come.

During August showers are reported to have occurred along the east side of the Selway, Clearwater, Nezperce, and St. Joe Forests. If the showers happen frequently enough the situation will be relieved; if not, there is trouble ahead.

District 2

The Dolores timber survey project has been postponed probably until after the war. This has been necessary on account of the drafting of a number of the men engaged on the work. In organizing the crew an effort was made to select men who would not be affected by the draft, but changes in classification and the registration of men becoming twenty-one years of age during the past year disarranged all plans.

A. G. Lincoln has taken up his duties in the Office of Engineering. Mr. Lincoln will be primarily responsible for the water power work in this District, and will also assist Mr. Pratt in the general administrative work.

V. H. Lininger of Fraser, Colorado, has been awarded a sale of timber for approximately three million feet of lodgepole pine, Engelmann spruce, and Alpine fir sawtimber, mine props and mine ties, at the rate of $2.30 for M feet for green sawtimber, $1.00 per M feet for dead sawtimber, and 16 cents per linear foot for mine props and mine ties.

Negotiations have been under way with the State Food Administration for Colorado to obtain blanket authority for supervisors and rangers to purchase the sugar needed in fire-fighting emergencies. Arrangements made provide that the State Food Administrator will authorize twenty-five Forest Officers, to be designated by the District Forester, to purchase not to exceed ten pounds of sugar each. Under present rationing this is sufficient for 450 meals, enough for the ordinary small fire. In case of larger fires special arrangements must be made with the local administrator.

Similar arrangements have been made with the State Food Administrator of Wyoming.

District 3

The administrative control of practically the entire west slope of the Mazalazal Mountains has been transferred from the Tonto to Prescott Forest.

The Lincoln Forest is profiting by the presence of the Eighth and Ninth Engineers (mounted). The Eighth Engineers will replace the bridge across La Luz Creek on the Alamogordo-Tularosa road which was recently washed out and will survey the new road between Tularosa and the Indian Agency at Mescalero. The Ninth Engineers have constructed a bridge across the Tularosa.

In return the Lincoln Forest has supplied the Engineers with pole timber, principally aspen, for the construction of picket lines, and corrals at Camp Courchesne, El Paso, Texas.

During the month of July there were 62 Class A, 28 Class B, 9 Class C-1, and 1 Class C-2 fires in the District, burning over approximately 1,910 acres and causing damage to Forest resources estimated at $2,889.24. Expenditures amounted to $2,382.00.

General rains early in the month had made it possible to reduce greatly the protective force, but towards the end of the month conditions were not so favorable and the probabilities are that it will be necessary to increase again the protective force on some of the Forests.

Spring planting of Douglas fir and Engelmann spruce is more successful than fall planting, judging by the showing of last year's experiment on the Santa Fe.

A three-acre plantation of western yellow pine at Grand Canyon made in 1905 now shows one thousand thrifty trees per acre, averaging 18 inches in height.

Specialists from the Arizona College of Agriculture have arranged for a series of meetings in Northern Arizona for the benefit of stockmen. The Forest Service will be represented by Mr. Hill, of the Office of Grazing.

District 4

Two Indians on the Toiyabe Forest recently stole 59 head of ewes from a large band of sheep and drove them to a small canyon about three miles distant, where they began to kill and skin them, burying the carcasses. They did not finish the job, but hurriedly buried the pelts of the sheep killed and departed. After considerable hunting around, the sheriff finally found the Indians. One managed to make his escape and was not retaken until three weeks later. The Indians at first denied the crime, but later pleaded guilty and received indeterminate sentences from one to fourteen years.

District 5

The setting of forest fires by campers is going to be made very unpopular in California. Forest Rangers have made 46 arrests and secured 43 convictions under the State Fire Law during the months of June and July. In addition four Federal indictments have been secured for wilfully or maliciously setting fire to timber or under-growth.

Because he was too tired to fight a forest fire which he had discovered, and because he failed to report it to the Forest Ranger, W. L. Callison, a rancher and stockman of Fall River Mills, Shasta County, has been ordered to remove his cattle from the Shasta National Forest within ten days.

Sometime ago Callison and his son, while on a trip, discovered a fire on the Shasta Forest. They returned home next day without making any attempt to put the fire out, and although they passed two telephones on their way, neglected to report the matter to the Forest Ranger.

District 6

The fire situation in District 6 is very satisfactory at present; the Cispus fire, on the Rainier, is the only large fire now burning. The rainfall during the past week has been sufficient to prevent fires spreading, although it has not been effective in extinguishing the Cispus fire. In spite of the rainfall the woods are still very dry and a few days of east wind would be sufficient to spread any small fires that are burning.

The soldiers who helped fight the Cispus fire, which threatened to enter the Columbia Forest from the Rainier last month, developed into excellent fire fighters, according to Supervisor Brundage. The soldiers were limited-service members of the Spruce Division at Vancouver Barracks, and were for the most part unfamiliar with forest conditions in the Northwest.

Elijah Coalman, lookout man on Mount Hood for the past three seasons has resigned because of injuries received in the performance of the strenuous duties connected with his work. During his term of service on the mountain he has met with several more or less serious accidents.

Two years ago, while packing a case of kerosene up the mountain side, Coalman fell through a small crevasse, striking the ice eight feet below and bruising his chest severely. This injury affected his heart and has caused him trouble on several occasions since. Last week, while making some repairs on the telephone line on the north side of the mountain, he was caught in an avalanche and only his presence of mind prevented his destruction. The descending rock cut the lifeline to which he was clinging, and left him on the sixty-degree slope with only his ice axe for protection. He succeeded in avoiding the larger mass of rock until most of the material had passed; then a piece of rock struck him

and knocked him to the bottom of the slope. When he regained consciousness he found himself lying on a sunken snow bridge over a crevasse. He was able to make his way to the summit next day, but in the evening his injury asserted itself and caused him intense suffering all through the night. The next morning, after notifying Ranger Henson of his condition, Coalman put the lookout cabin in order and came down off the mountain.

Coalman is an experienced mountaineer and his work as lookout man has been useful and picturesque. Mark Weygand, who has had considerable experience as guide at Cloudcap Inn, on the north side of the mountain, has been appointed his successor.

"Airplanes and ships will win the war. Let's help win it!" is the slogan on the announcement cards for the tenth session of the Pacific Logging Congress, which will be held in Portland, Oregon, December 5 to 7.

The total lumber cut of thirty sawmills in Alaska for 1917 was 33,160,000 feet board measure, according to figures furnished by Supervisor Weigle. The cut by species and average price per thousand is as follows:

Sitka spruce	31,773 M. ft.,	at	$21.23
Western hemlock	1,117 "	"	19.61
Western red cedar	260 "	"	20.18
Yellow cypress	10 "	"	50.00

This is believed to be the first report on the annual lumber cut in Alaska ever compiled by the Forest Service.

The timber-survey crews covering the Sitka spruce areas on the west side of the Olympic have finished the field work on the Quinault and West Fork Humptulips watersheds. They are moving their camps to the Queets, Calawah, and Hoh rivers, and expect to finish their work in this region during the present field season.

The issuance of bonds to the amount of $5,500,000 for developing the Skagit River power project by the City of Seattle has been approved by the Capital Issues Committee.

Construction work has begun on the Cooks-Collins Federal Aid Road on the Columbia. This four miles of road is the first link in the North Bank Columbia River Highway, and its completion is of considerable importance from a military standpoint. It is being built by day labor. Three construction camps have been established.

The Forest Service, in cooperation with the Bureau of Entomology, has undertaken an investigation of Sitka spruce damage on the Lower Columbia River flats, embracing an area of from forty to fifty thousand acres. This damage occurs on privately owned areas. The damage is probably pathological in its origin rather than due to insect attacks. The spruce valuable for airplane stock growing on the higher slopes behind these flats has not been affected.

The federal grand jury has returned an indictment against Charles and William Lindsay of Ashland, Oregon, on the charge of maintaining an unlawful enclosure of Government lands on the Crater Forest. The defendants have been released on bail pending the trial.

Emmett Cochran, Heffner, Ore., pleaded guilty to the charge of a criminal grazing trespass on the Umatilla Forest and was fined $500. In addition Cochran settled the civil damages caused by the trespass by the payment of $1,000 additional. The trespass consisted in allowing a large number of his cattle to graze on the Umatilla Forest without securing a permit.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

August 26, 1918.

Forest Service Dry Kilns Prove Acceptable

Colonel Disque has informed the Forest Service that the Production Department is prepared to take over the dry kilns which have been installed and operated under the direction of H. D. Tiemann, of the Madison Laboratory, at the Vancouver Cut-Up Plant. Notification of this was set forth in the following letter:

WAR DEPARTMENT

Spruce Production Division

Bureau of Aircraft Production

Yeon Building, Portland, Oreg.,
August 10, 1918.

From: Commander, Spruce Production Division

To: H. D. Tiemann, C/o U. S. Forest Service, Beck Building,
Portland, Oreg.

Subject: Vancouver Cut-Up Plant Dry Kilns.

1. I have observed with much satisfaction the material coming from our humidity-regulated water-spray kilns. This material is perfect in appearance and the strength tests made by our Technical Department show that the kiln-dried lumber retains its fullstrength as compared to the strength of the most carefully air-seasoned stock. The drying is so successful that we have had no cullage at all.

2. I am pleased to congratulate you on the complete success of your kiln and also wish to thank you for your untiring efforts in assisting our kiln operating force to get the finer adjustments made and the kilns placed on a satisfactory working basis.

3. In view of the results secured in drying our aircraft lumber, I am glad to take over these kilns for operation by the Production Dept. of this Division.

(Signed) BRICE P. DISQUE,
Colonel, U. S. Signal Corps,
Commanding.

The Forest Service feels very proud over the success along these lines, particularly as thecontribution is of such vital importance in the aircraft program this country has undertaken.

The following letter received some time before decision was reached as indicated in the letter from Colonel Disque gives some idea as to the character

of results obtained. The record should be very gratifying to all members of the Forest Service!

Yeon Building, Portland, Oreg.,
August 2, 1918.

From: Production Department,

To: Director Forest Products Laboratory, Madison, Wis.

Subject: Dry Kilns.

1. I wish to express to you my complete satisfaction with the results which we are getting through the use of the Tiemann humidity-regulated dry kiln. We find it possible to kiln dry 2-5/8" x 4-1/2" Douglas fir wing beam stock without the least checking.

2. Our inspector reports that he had inspected more than enough lumber to fill three cars before he found a single piece which showed any damage from kiln drying operations. In fact, we have had practically no cullage at all and have dried this stock in about 22 to 24 days.

By direction of Colonel Disque.

By C. E. Bruce (Signed)
Major, S.R.C., A.S.
In Charge of Lumber Production.

Mexican Agricultural Commission Visits the Forest Service

The Mexican Agricultural Commission which has been in the United States for several months getting acquainted with agricultural and kindred subjects paid a visit last week to the Forest Service.

Senor Miguel A. de Quevedo, Minister of the Interior for Mexico, heads the party. Dr. Safford, of the Bureau of Plant Industry, acted as interpreter.

Forest Service policies and methods of administration were explained to the visitors. The members of the Commission showed considerable interest in the length of time some of the Forest officers in the Washington Office with whom they came in contact had held on to their jobs, and they fortified themselves with all available information on Civil Service employment and methods.

Forest Ranger Killed by a Slacker

Rudolph E. Mellenthin, Forest Ranger on the La Sal Forest, was killed last Saturday while attempting to arrest a Mexican slacker.

The Department of Justice, in response to the request of the Solicitor of the Department, has sent instructions to its field officers to make every effort to apprehend the murderer.

Ranger Mellenthin has been a member of the Forest Service since 1909.

C'EST CA

I shorely ain't much ov a soldier,
Er else they w'uld give me a gun,
Instead ov a axe an' a crossct,
Fer fightin' agin th' dern Hun.

I'll own that it shore is some safer,
Plumb back from th' hell-scrappin' line;
An' yit, jest a-thinkin' o' safety,
T' me don't appear very fine.

There's never no chanct t' git medals
That'll shine mighty bright on yer breast,
When once y'u git back t' th' Homeland
An' settle right down fer a rest.

An' even th' bloomin' ole papers
Don't carry no picters ov us;
In some ways, we might as well be
A thousand o' miles frum th' fuss.

An' yit I jest kaint help a-thinkin'
O' what in th' devil we'd do
With nothin' but crosscuts an' axes--
If ever them Boches got through.

Corp. Vance C. Criss,--Engrs.

--From The Stars and Stripes

House Hunting a la Betts

H. S. Betts came plunging into the editorial cell today and told another one. Usually we refrain from repeating Betts' stories because we despair of ever getting the true Bettsian flavor into the repetition, but here goes for once:

A man bearing the name of the most important family of hardwoods sought long and anxiously for a house in Washington -- almost any kind of house. After many weary weeks he saw an advertisement announcing that a house was for rent at Cherrydale. With joy in his heart he boarded the first car that came along, paid his fare, and slipped into the crowded aisle. Usually a car ride in Washington is a life-and death matter, and citizens fight grimly for a place, with set jaws and knitted brows. Lo! this time everyone was looking happy and they made way most graciously. Mr. Most Prominent Hardwood felt even more cheerful; this was a good augury; he was sure to like the house.

Presently the time came for him to get off the car. He did not go alone, however, for all the rest of the people got off with him! For a moment he stood by the track looking for the house, his fellow-travelers meantime spreading out along the track admiring the scenery. He consulted the advertisement, which he had kept clutched in his hand, got his bearings, and lifting his eyes beheld a small, rather dilapidated cottage surrounded by a crowd such as collects at a fire. There was a long line of automobiles in the background. Hastening in that direction he found himself accompanied by all those who had been in the car. He asked for the agent as he joined thecrowd about the house. A voice replied scornfully: "It's already rented!"

Elimination from the Routt Forest

On August 20 the President signed a proclamation eliminating 105,182 acres from the Routt Forest. The excluded areas are situated along the exterior boundaries of the Forest. The greater part of the elimination comprises an area

in which are situated Baker's Peak, Brush Mountain, Columbus Mountain, and Three Forks Mountain, all four reaching elevations of more than 9,500 feet. These peaks were eliminated from the main Forest on account of their isolation and their slight value for forest purposes.

In the extreme southwest corner of the Forest a strip of land 6 miles long and 1½ miles wide was eliminated. The greater portion is already in private ownership and it was excluded to simplify the administration of the Forest.

Timber Receipts for 1918

Receipts for timber sales for 1918 amounted to $1,519,866.

The following table shows that in the amount of these receipts District 6 ranks first and District 4 last:

	Total timber receipts	Per cent of total	Rank
District 1	$253,217	16.66	3
" 2	219,733	14.46	4
" 3	276,979	18.22	2
" 4	62,897	4.14	7
" 5	209,818	13.81	5
" 6	415,096	27.31	1
" 7	82,126	5.40	6

District 6 controls the largest amount of timber, equalling about 51.89 per cent of the total stand in the National Forests. District 7 ranks last, as it contains but 0.74 per cent of the total stand.

	Timber stand (Per cent of total)	Rank
District 1	9.73	3
" 2	5.16	5
" 3	5.03	6
" 4	8.25	4
" 5	19.20	2
" 6	51.89	1
" 7	.74	7

On the basis of timber receipts per acre, District 7 leads, putting District 6 in last place. The following table shows the relative standings of the Districts:

	Per acre	Rank
District 1	0.023	5
" 2	.028	3
" 3	.037	2
" 4	.027	4
" 5	.022	6
" 6	.014	7
" 7	.044	1

How Benham and Murphy Were Killed

Announcement was made in last week's Bulletin of the death of Bob Benham and Malcolm D. Murphy while fighting a forest fire on the Siskiyou Forest.

Further particulars of the accident have just come to hand. It appears that Benham and Murphy, in making an effort to escape a falling snag when the

warning was sounded, became confused and were both struck by the tree. A third laborer, Goldthrip, was struck by falling pieces and knocked unconscious. On regaining his senses he at once ran to the assistance of the others, but found Murphy dead and Benham very badly injured. Goldthrip made an effort to extricate Benham, but stopped on account of the great pain Benham was suffering. Goldthrip thereupon hurried away for assistance, but when he returned with help Benham was dead.

Committee on Reconstruction Problems Appointed

Raphael Zon, Chief of the Office of Forest Investigations, has been appointed a member of the Committee on Reconstruction Problems just formed by the National Research Council. The Committee is constituted as follows:

Vernon Kellogg, Chairman
F. H. Newell, Vice-Chairman
S. P. Capen
Walton H. Hamilton
Raphael Zon

To help things along an appropriation of $5,000 has been made available for use by the Committee.

Legislative Matters

Congress is back on the job and during the past week some consideration was given to the water-power bill, which had the right of way under previous agreement but later gave way to the man-power bill. The man-power bill being out of the way and passed on to the Senate, it is believed that the water-power bill will again come up for discussion.

New Publication

According to the bulletin on "Quantity of Wood Treated and Preservatives Used in the United States in 1917", prepared by R. K. Helphenstine, Jr., in the year 1917 a total of 137,338,586 cu. ft. of wood was treated in 115 treating plants as compared with 150,522,982 cubic feet by 117 plants in 1916.

The collection and publication of the figures was made in cooperation with the American Wood Preservers Association.

Forest Service Uniform

The adoption of a standard Forest Service uniform is again receiving considerable consideration.

There seems to be need for early action to head off the adoption of forestry green by other organizations. As it is, the Western Union Messenger boys and Y. M. C. A. workers - not to mention several smaller organizations - are wearing forestry green uniforms. The following item from the field indicates what is happening even now:

> "Recently in traveling through Logan Canyon Supervisor Shepard and Ranger Rice of the Cache Forest came upon a party whose automobile had just barely been persuaded from taking a high dive off the 20-foot embankment into the river. The two Forest officers, of course, assisted in jacking up the car and getting it safely back on the road. After the conclusion of this performance, one of the women in the party was overheard to remark: 'Goodness me! What would we have done if those two Scouts hadn't happened along!"
>
> "After considering the matter at some length, Shepard and Rice concluded that the good woman must have taken a very hasty look at the buttons on the Supervisor's coat."

Government Sets Black Walnut Prices

In order that owners of black walnut timber may have definite assurance that they are getting fair prices for their timber, the Director of Lumber has published a schedule showing a fair and reasonable price for the different sizes of logs and standing timber.

The Government is not buying either logs or trees; it is merely making all possible effort to stimulate the production in order that the manufacturers having contracts to furnish gunstocks and propeller timber may be able to get the material needed to fill these contracts. The prices indicated are on board cars for logs 12 inches and up in diameter and 8 feet and up in length. Logs are measured by the Doyle Rule from Scribner's Log Book. The prices paid to the contractors by the Government for gunstocks and propeller timber are based on these log and timber prices. Suggestion is also made that walnut lumber be sold only to sawmills having Government contracts or to log buyers carrying credentials from such mills, as well as credentials from the Government indicating that they represent mills having such Government contracts.

The prices range as follows:

	Value per M feet		Equivalent value in standing timber	
Diameter	Minimum	Maximum	Minimum	Maximum
12" 14"	$45	$55	$20	$35
15" 16"	55	65	30	45
17" 18"	65	75	40	50
19" 20"	76	85	50	60
21" 22"	85	95	60	70
23" 24"	95	105	70	80
25" 26"	105	115	80	90
27" 28"	115	125	90	100
29" 30"	125	135	100	110
31"& up	135	150	110	120

County Commissioners Back Down on Road Work

The Commissioners of Lawrence County, S. Dak., who had entered into an agreement to construct a road on the Black Hills Forest of about 16 miles in length in cooperation with the Forest Service, have passed a resolution addressed to Secretary Houston asking for relief from the agreement.

The reasons advanced are that present conditions make it very undesirable to undertake this work on account of probable inability to get the necessary labor for the construction work and the desire to keep expenses in the county at a minimum on account of the many demands occasioned by war conditions.

The resolution also includes the statement that at the time the agreement was entered into they did not understand that the county had to furnish the rights of way, and as this will necessitate the outlay of additional funds, the commissioners do not consider it advisable to proceed.

Since the original agreement was signed, there has been a change in county surveyor, which may have considerable bearing on the step taken, particularly since he has expressed himself as dissatisfied with the location survey made by the Office of Public Roads. The location work was done with the knowledge and approval of the commissioners and cooperation of the surveyor in office at the time.

Although the request for relief from the cooperative agreement is on the alleged basis of shortage of labor and war expenditures, such conditions apparently are not going to interfere with the county road activities in other parts of the county. The county is going to undertake new construction work on about 10 miles of road which has for its main object the construction of a cut-off road into Deadwood to lessen the chance of tourist diversion, to the detriment of Deadwood, which is now going on. The commissioners have, in fact, advertised for bids and awarded the contracts for this work.

One of the commissioners who was not in favor of abandoning the cooperative agreement introduced the following resolution in order to put the county

four-square with the world: "That all new road projects and all new road construction be abandoned and discontinued until after the war, and that the county road expenditures be confined to the repair and maintenance of the highways already constructed."

This resolution was defeated, which action seems to mean that present conditions affect the cooperative work but by no means apply to all of the other road projects in the county.

The contribution of the county to the cooperative work with the Forest Service amounted to about $8,000 for each of three years. The annual expenditures by the county for general road work during the past ten years has been not less than $50,000. This work will be continued, as indicated by the refusal to adopt the resolution which had in mind the postponement of all new construction work until after the war.

War Brevities

A special sales department has been organized by the Spruce Production Division of the U. S. Signal Corps. Seven representatives who are experienced lumbermen and salesmen have been selected and will look for buyers in the district east of the Mississippi River and extending to the Atlantic Coast.

About 12,000,000 feet of stock, forming the side cuts at the Government cut-up mill at Vancouver Barracks have accumulated since the mill was started several months ago. The timber consists of fir and spruce clears, from 1 inch to 3 inches in thickness, from 2 inches to 12 inches in width, and from 3 feet to 20 feet in length.

Over 15 million feet of black walnut have been located and reported to the Forest Service by the Boy Scouts, in response to the call made by the President that the Boy Scouts give their assistance in locating and reporting on black walnut timber. Compilation of the data is made by the Forest Service and the information then passed on to the War Department. Incidental to this work the Forest Service is having a busy time handling correspondence relating to this subject. Inquiries are as varied as the number of letters received.

Washington Notes

Major George A. Bentley dropped in at the Atlantic Building last week to tell us how it feels to be Major and how he managed to outgrow his captaincy.

H. E. Surface has returned to Madison after spending a couple of weeks in Washington busied with paper and pulp matters.

R. K. Helphenstine, jr., and Charles W. Potterton spent considerable ti during the past week at Georgetown checking over ship toothpicks which had accumulated as a result of an effort on the part of an operator to manufacture locust treenails for war purposes. The operator found his venture unsuccessful.

It's now Captain Claude E. Greider, the promotion from second lieutenant, with no intervening stop, coming during the past week. Captain Greider is on detail to the Bureau of Aircraft Production and stationed at Washington.

District 1

The District is rejoicing over the rains that have been recently reported from everywhere within its borders, and the fires that were burning are out or under control. Several hundred extra men are still employed.

The bid of the Carscellan Bros. Construction Co., of Coeur d'Alene of $139,878 for the construction of the Fourth of July Canyon Road has been recommended for acceptance.

The Bureau of Public Roads has completed the reconnaissance survey of the Glacier Park Summit Road.

District 2

The outdoor life attractions of the National Forests of the Rocky Mountain District are featured this season in the "Come Up to Colorado" booklet recently issued by the Denver Tourist Bureau. Two pages of text and photographs in colors make a very attractive advertisement for the National Forests. 75,000 of these booklets have been printed for distribution to the public.

The seven Forest officers from District 2 - McLaren, Hutchinson, Wiehe, Blaine, Jensen, Kleiber, and Shoemaker - who were detailed in July to assist in fire fighting in Montana and Idaho, District 1, have all returned with wonderful stories of "I.W.W.'s," "big timber," "horses of mosquitoes," and "cooties" - not to mention big fires and long hikes.

The comfort station at the Wapiti Camp Grounds on the Cody Road to Yellowstone Park is proving very popular with campers and motorists. Supervisor Allen of the Shoshone reports that large numbers of travelers are finding the shower bath facilities of the station a welcome relief after long, dusty motor rides. The Service is receiving very favorable commendation and considerable advertising through this project.

Wind velocity studies in connection with fire prevention are being prominently featured throughout the District. Five new anemometers were recently installed on the fire lookouts at Custer Peak and Cement Ridge in the Black Hills, Harney Peak in the Harney, and at Cass Lake and Ely, Minnesota, in cooperation with the Weather Bureau. This makes a total of ten such instruments on which daily readings are secured throughout the fire season.

James T. Jardine, Inspector of Grazing from the Washington Office, spent August 14-17 in Denver discussing problems of National Forest range management with Assistant District Forester Hatton. Mr. Jardine left for Steamboat Springs on August 18 to join Grazing Inspector L. H. Douglas for a field trip through the Routt and White River Forests. Larkspur eradication is the main problem which will receive consideration, especially on local areas on these two Forests where this plant occurs in great profusion.

Major Boyden, in charge of military reconnaissance work throughout the United States, held a conference with District officers on August 17 to secure the cooperation of the Forest Service in compiling information of military value in the country within and adjacent to the National Forests of District 2. As a result of the agreement entered into, military data will be collected by Forest officers in Colorado, Nebraska, South Dakota, and Minnesota. Information of a military character on the National Forests of Wyoming is already being compiled. Lands outside the National Forests will be covered by State officials, probably under the direction of the State Engineer.

Steps are under way to rebuild immediately the sawmill of the Stevens-Barr Lumber Company on the Arapaho which was recently destroyed by fire.

Forest Examiner W. I. Hutchinson, in charge of improvements and recreation, has taken over the library and information work in the District office.

District 3

An outbreak of anthrax among the cattle of the Gila Valley is reported by Supervisor Swift. The State Veterinarian is reported to be on the ground making an investigation.

With deep regret announcement is made of the death of Forest Ranger D. R. Smith on August 12, at Flagstaff, Ariz. Mr. Smith was appointed on the Carson April 11, 1918, and transferred to the Coconino on June 28, where he was in charge of the McGonigle timber sale.

Mrs. Jessie Mott, wife of Forest Ranger E. H. Mott, on the Lemhi Forest, has been employed since May as rider for the Pass Creek Cattlemen's Association. Mrs. Mott has made good in keeping the cattle within the allowable limits and incidentally pulls down $125 per month for her watchfulness. On one occasion her ministration to six head of poisoned cattle was so effective that the cattle fully recovered. This latter success may in a measure be due to Mrs. Mott's previous experience as a trained nurse.

A trail 14½ miles in length has been constructed in Pueblo Canyon on the Carson Forest. It penetrates and makes easily accessible for fire fighters at least 50 million feet of timber. The total cost was $170 from the improvement fund and $90 contributed time, which is at the rate of $17.93 per mile. It is by no means a finished trail. The work consisted in cutting out the timber to a width of 6 feet. Practically no work was done on the tread, but the trail can be easily traveled on horseback.

In building this trail attention was given to alignment and grade as the first consideration and the work done will be of value in the future if steps can be taken to convert it into a Class A trail.

District 4

District Engineer Martin recently examined the Cottonwood Creek Road on the Wyoming Forest, which has been severely damaged by a flood. Work on the Cottonwood Creek Road will be done by the Teton Pass Road crew which is now on the job. The Forest Service has allotted $6,000 from the 10 per cent fund and the county has appropriated $2,000 for this work. Approximately $1,500 is to be secured from private donations. This road is the only practical route for supplying firewood and lumber to the settlers in Upper Star Valley, and is to be completed this summer so that the firewood can be made available for next winter's use and the lumber be secured. The lumber is badly needed by the people in Star Valley fo building granaries to store this season's extra large grain crop.

Supervisor Humphrey of the Sevier Forest is back at Panguitch after spending three weeks fighting fires on the Clearwater and Solway Forests in District 1. The difficulties experienced in scaling mountain heights, cutting miles of trail through dense windfalls of timber, packing his bed 23 miles on his back, and other activities of like nature, will probably cause him to regard the Sevier Forest as a haven of rest.

Supervisor Dana Parkinson of the Salmon National Forest has passed the examination for a commission in the army, and probably will be instructed to report for duty about September 1.

J. W. Nelson, Inspector of Grazing from the Washington Office, arrived in Ogden after a tour of inspection in District 3. Mr. Nelson crossed the Grand Canyon on the wire cable. He spent a few days inspecting ranges on the Kaibab Forest. After a stop at the District Office, Mr. Nelson will investigate some matters on the Humboldt Forest in which the North Fork Cattle Growers Association is interested.

The effect of the recent order to the railroads that they draw on the timber resources accessible to their right-of-ways for tie material was indicated by a recent request from the Purchasing Agent of the Oregon Short Line for full information regarding all tributary lodgepole tie chances. Up to the present time the Oregon Short Line has secured most of its ties from the Douglas fir region of the Pacific Coast, refusing to consider lodgepole for such purposes.

The Teton Pass Road from Victor to Jackson after many vicissitudes, is now available for all kinds of traffic. Although further work will be necessary to put the road in first-class condition, it is immeasurably superior to the old roads, and its construction will greatly facilitate travel from the Jackson Hole country to the railroad. It proved to be impossible to locate the road so as to avoid four large and dangerous snowslides which have in the past each winter caused the death of one or more travelers. The construction of snowsheds to reduce the hazard of winter travel over the road is under consideration.

District 5

Fourteen additional arrests in fire trespass cases have been made since the previous announcement of the accomplishments along this line.

A $50 fine was paid in ten of the fourteen cases, suspended sentence given in two others, and two were acquitted. Two cases are of particular interest:

On the Plumas Forest two men returning home late from a fishing trip started a fire from pine cones which they had used as torches. District Ranger Douglas discovered the fire the next day, put it out, and then took up the pine-cone trail and arrested the individuals. The torchlight procession cost them $50 each.

The case on the Modoc was a real achievement. A fire was traced back to a camp fire. A sheep herder was suspected but denied all knowledge and on account of the absence of proof it seemed as if nothing further could be done. However, the suspected herder later boasted to his employer, who in turn at once informed Ranger Wentzell. It cost the herder $50.

Professor Metcalf, of the University of California, who has been unceasing in his efforts to establish rural fire protection throughout the various counties of California, has summarized the situation in the State to date as follows:

"Thirty-six counties in the State have during this year taken some action to insure better fire protection. Twenty-four out of these thirty-six counties have adopted at least in its major details the plan of organization approved by the Forest Industries Committee. Four hundred twelve local fire-fighting companies have been organized and it is estimated that over 16,000 square miles of territory are now protected by these organizations. Five hundred thirty-two fire trailers, equipped with fire extinguishers or fire-fighting tools, have been installed at danger points and 6,500 individuals in the State are now members of the rural volunteer fire-fighting companies."

Good looks are now apparently considered prerequisite for employment on the Plumas Forest, according to a recent telegram of inquiry received by the District Office which read:

> "Do you wish to employ as scaler * * * * a good-looking, well recommended young man * * ?"

How times do change, even in the Forest Service!

District 6

Telephone Engineer C. M. Allen has invented an apparatus which makes it possible to call to the telephone persons who may be a considerable distance from the instrument. It consists of a Klaxon horn operated by a combination of special relays so adjusted that a direct current is necessary to produce the loud-sounding alarm. A special magneto, which delivers either direct or alternating current, furnishes the energy to operate the relays. This makes it possible to use the ordinary ringing signal or the loud-sounding alarm at will. Six cells of dry batteries operate the horn and furnish the energy for talking. The telephone and horn equipment are mounted in a wooden case for packing on horseback. This special equipment is for use in fire camps and in construction camps, or elsewhere when needed to summon men who may be working at some distance from the instrument. It is primarily for forest fire protective use, but of course may prove handy in other emergencies. In testing this instrument on the Snoqualmie, the signals were distinctly heard for a distance of two miles. Simson

George R. Georgens, motion-picture photographer for the Department of Agriculture, has reached Portland. Mr. Georgens plans on making a series of motion pictures illustrating harvesting, marketing, and milling of grain in the Northwest. Time permitting, he will make pictures illustrating National Forest activities.

Forest Examiner W. B. Osborne, of the District Office, Supervisor Allen, of the Rainier, and Meteorologist T. Francis Drake, of the Weather Bureau, recently made on foot a 100-mile trip around a large portion of the Cispus fire on the Rainier. They entered the Forest at Lewis, Wash., and came out six days later at Randle, Wash. The burned area is much more extensive than has been hitherto reported and covers more than one hundred thousand acres. Its greatest length is about thirty-five miles. One hundred and forty men, about one-half of them soldiers, are still working on the fire. The weather has been favorable the past two weeks and the fire is not spreading. There are many smoldering fires in the green timber that started from the main fire. Most of the men are engaged in locating and extinguishing these smoldering fires.

Assistant District Forester E. N. Kavanagh has arrived in Portland and taken up his work in the District Office as Chief of Grazing as successor to T. P. Mackenzie, who has gone to his new work as Commissioner of Grazing in British Columbia.

C. E. Miles, of the Solicitor's Office, Washington, who has been holding down the local job as Assistant to the Solicitor during Mr. Staley's absence, has proceeded to San Francisco for a similar detail.

Supervisor L. E. McDaniels, of the Wenaha, is acting as superintendent of the stock department of the Walla Walla fair. The Forest Service will have an exhibit at this fair, which will be held September 10 to 14.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

September 2, 1918.

For Smokers Only

The odor of Spanish cedar has been declared nonessential by the Priorities Committee of the War Industries Board and as a result cigar-box manufacturers are in a quandary.

The finicky American smoker does not feel satisfied with his smoke unless the cigar has been brought to him in a Spanish cedar box. Now Spanish cedar is an imported wood, and to import the requisite amount uses up valuable shipping space needed for essentials.

Manufacturers have called on the Forest Service for assistance in solving their difficulties. It is proposed to substitute a wood-fiber box, provided a box can be manufactured that is mechanically fit for packing and protecting the contents in shipment and storage, and it is in this phase of the experiment that the Forest Service is interested.

It is proposed to impart the luscious flavor of Spanish cedar to the cigars by spraying the wood-fiber box with oil of cedar.

Catching Firebugs in California

The setting of forest fires is at present being made a very unprofitable act in California through the vigilance and activity of the arson squad. Much ingenuity is at times required to apprehend the firebugs, and the following excerpts from a detailed report indicate how the Forest officers placed the responsibility on the guilty party.

On July 29, 1918, a fire covering 200 acres of brush and grazing land occurred in Travelers' Home Basin on the California Forest. On investigation the Forest officers decided that it was caused by an unextinguished camp fire. In looking around for tell-tale evidence they found partly burned saddle blankets, wearing apparel, and quite a length of a rawhide latigo, burned and curled so as to be useless. This piece of latigo had apparently been cut off with two strokes of a very sharp knife and thrown to one side. The articles enumerated were all carefully gathered together and held for possible future use.

Tracks and hair on the partly consumed saddle blankets near the camp fire led to the conclusion that the party had had three animals -- one gray, one bay or sorrel horse, and one mule. The Forest officers also found the tracks of two persons, peculiarly hobnailed; one large -- those of a man, and the other small -- those of a small man or someone wearing a boy's shoe. Careful measurements were made of all tracks.

In following the tracks the rangers landed at the shack of Arthur Rutledge at Devil's Den. Rutledge acknowledged the tracks to be those of himself and step-daughter, Mrs. Sochia, and of the animals owned by him, but denied strenuously having camped at Traveler's Home. He stated that he had merely gone to cut down a bee tree and returned home without camping and that in fact he had not taken any pack along. The mule had merely followed.

Owing to the strenuous denial on the part of Rutledge, the Forest officers seemed for a time to be unable to do any more. However, they were not baffled, but constructed a chain of circumstantial evidence showing that Rutledge and his step-daughter had gone to Traveler's Home with a pack, had thrown down the pack, made some coffee, and then gone to cut the bee tree without extinguishing their camp fire. The camp fire later spread and burned considerable of their equipment; and on account of the size of the fire and the absence of fire-fighting tools they had deserted it.

After working out this theory, the Forest officers again called on Rutledge, who continued his denial. His story was taken down and when completed was given to Mrs. Sochia to read out aloud to him. Mrs. Sochia became visibly agitated and appeared to be on the verge of tears.

Rutledge was then called on to show his pack saddle, which he did readily. The merest glance at the saddle showed that the latigo was of rawhide and that a large portion of the point had been cut off with two strokes of a sharp knife. The piece picked up at the camp fire fitted nicely into that still on the saddle, and when Rutledge was asked for an explanation he "blew up", and accused the rangers of a frame-up -- that they had sneaked to the house and done the cutting. The demeanor of Mrs. Sochia while this was going on indicated that the Forest officers were on the right track.

Rutledge was then called on to produce evidence to disprove the facts as outlined. He brought out some blankets from the house where they had been on the bed and declared them to be his saddle-blankets. They were, however, clean and had never been used on a horse.

No confession was wrung from Rutledge and it was intimated to him and his step-daughter that steps would be taken to indict them both for complicity in and responsibility for setting the fire.

As the Forest officers were about to depart, Mrs. Sochia broke down and asserted herself to be responsible for the fire, stating that she had made an effort to burn a rattlesnake out from under a log and had failed to extinguish the fire. This statement was just about as truthful as that made by Rutledge, but was accepted. Mrs. Sochia later appeared before a Justice of the Peace, pleaded guilty to having built a fire on National Forest land and having allowed it to escape from control, and was fined $50.00, which sentence was suspended for six months pending good behavior.

Madison Laboratory

The exact strength of airplane struts can now be tested without injury to the struts, at the rate of one a minute, by means of a machine just perfected at the Laboratory. Consulting Engineer E. R. Maurer spent some time in Washington during the past week with officials of the Bureaus of Aircraft Production and Construction and Repairs, setting forth the methods of test.

The great value of the tests is that each accepted strut can be tested to its full strength, so as to determine whether it is capable of meeting the strain to which it will be subjected.

Tests made indicate that by the present visual inspection many good struts are rejected on account of apparent defects which actually do not weaken them sufficiently to warrant rejection. This waste of good material will be done away with completely by the use of the new testing machinery.

The Army and Navy authorities have accepted the suggested method of making the strength tests of the struts and have signified their intention of adopting this method of inspection and test at once.

Agricultural Appropriation Bill

Final action has not yet been taken on the Agricultural Appropriation Bill for 1919. Funds for September have been made available by a continuing resolution.

Old Publications

The supply of old bulletins was increased by the following contributions during the past week:

St. Maries, Idaho	58
Walla Walla National Forest	29
Minnesota National Forest	120
Santa Barbara National Forest	20
Siskiyou National Forest	30
Jefferson National Forest	14

Washington Notes

R. C. Bryant is back at his desk and has to his credit a circle tour which started at Norfolk, included Jacksonville, New Orleans, Memphis, Chicago, Minneapolis, Madison, Cadillac, and did not overlook Oshkosh.

Earle H. Clapp has returned from a flyer to Madison and reports that the activity at the Laboratory is as great as ever.

Reynolds Goes Shooting

R. V. R. Reynolds, of the Washington Office, has gone to Camp Perry, Ohio, as a member of the District of Columbia Rifle Team consisting of 16 members who were selected from local aspirants after several competitive shoots. Camp Perry, the well-known Government Small-Arms Training School, is the scene of the annual national rifle matches. Mr. Reynolds expects to be gone about three weeks. The first week is given over to intensive training of the teams by experts from the army. During the second week the matches of the National Rifle Association are held, and during the last week the National matches.

In anticipation of Mr. Reynolds' return arrangements have already been made to get out the brass band, for we feel sure that he will bring home the bacon.

State Forester Pape Sustained by State Supreme Court

The Supreme Court of the State of Washington, in its decision of August 3, sustained State Forester Pape in his contention that moneys collected from timber owners for forest fire protection need not be paid into the State Treasury but may be used by the State Forester for the purposes intended.

At the last session of the Legislature, the State Forester was authorized to protect privately owned timber from fire, the expense of this protection to be levied against the property to be protected.

An effort was made to require the deposit of the funds collected in this connection in the State Treasury. Had this been done the contemplated protection work would have been seriously interfered with for it would not have been possible to get the money out of the Treasury without special legislative action.

By this decision the full control is vested in the State Forester without hindrance from anyone.

War Brevities

In Minnesota the State Fuel Administration has laid down the law that sawmill towns utilize all sawmill waste to eke out the diminished amount of coal which will be allotted to such communities.

Wooden buttons made from New England white birch are making their appearance. The trees are cut in winter and the logs sawed into squares four feet long, from one-half inch to four inches in thickness. The spool stock is seasoned for about six months. Special machinery shapes the wood into button forms, which are sandpapered, punched for the eyes, and enameled.

About 350 pieces of spruce are required in a single airplane. Not all of the pieces, however, are individually different. The wing beams are practically of similar dimensions and the struts vary only in size, according to the strain put on them.

Spruce was selected for airplane construction because it is the toughest softwood for its weight, possesses tremendous shock-absorbing qualities, and does not splinter readily when struck by a missile. It is used in frames of airplane wings, ailerons, fins, rudders, elevators, stabilizers, struts, landing gear, fuselage, and flooring for the engine bed.

Most of the spruce used in airplane construction is manufactured at the cut-up plant erected at Vancouver Barracks, Washington. This plant was constructed in forty-five days and employs two thousand men who work in three shifts. It is claimed that this plant is the largest of its kind in the world. It has twelve separate log carriages for conveying the spruce to twelve head saws, back of which are complete sets of edgers, cut-off saws, and other machinery necessary to convert the rived or sawed cants into finished stock.

New Film Shows California Recreation Grounds

"California Recreation Grounds" is the title of a new film just released by the California Forest Industries Committee as a part of the energetic campaign carried on in the State against preventable forest fires.

The scenes of the film are laid in the Plumas and California National Forests and show the advantages and pleasures of outdoor life in the mountains.

The main feature of the film is a 2,000-acre fire. The successive steps of the discovery of the fire and systematic method of fighting it are shown.

District 2

Lieutenant Rufus J. Pilcher, Aviation Corps, formerly of the Black Hills Forest, stopped in Denver on route on vacation leave from Camp Dick, Texas, to his home in the Black Hills. In his interesting account of the vicissitudesof an aeronaut's life, Pilcher remarked that "the man who says he was never afraid when up in the air learning to pilot a 'ship' has a poor memory."

Sergeant Harry Bennett, formerly Ranger on the Uncompahgre Forest, called at the District Office while on temporary furlough from Camp Funston, Kansas, and gave the boys an interesting account of training experiences, camp life, and the methods employed by the army in rounding out green recruits into first class doughboys.

District 2 is going after sign defacers. Recently on the Cochetopa Forest a man who inscribed his name in pencil on a number of new Service signs was given a stated period in which to remove the writing. He did so quickly and gracefully after reading the District Forester's letter quoting the penalty attached to the act of defacing Government property. Other cases of a similar character are pending. For the information of the various Districts, it may be stated that Dutch Cleanser, water, and a rag are unexcelled for sign-cleaning work.

The Government's "Work or Fight" order is going to be effective, judging by the experience of Operation. In the past few days applications for Service positions have been received from two stock brokers, two commercial art "fiends", one piano salesman, three dry goods clerks, four waiters, and two photographers (Washington office please note). No valets or chauffeurs have, as yet, made known their desire to become "range riders."

Recently 100,000 Douglas fir ties were purchased in Colorado at the rate of $.92 each by the Denver and Rio Grande. The Purchasing Agent believes that the price will shortly go to $1.00 each, the maximum established by the Federal Railroad Administration. The Denver and Rio Grande has also announced that it will accept for shipment to other railroads lodgepole pine, Engelmann spruce, and alpine fir ties.

Tourists to the Black Hills region have no escape from learning of the existence of the Black Hills Forest. A Forest Service tourist register has been placed in the rooms maintained by the Rapid City Commercial Club, and recreation and other Forest maps issued by the Forest Service decorate the walls. In the writing room of the Franklin Hotel, at Deadwood, there is on exhibit the regular Forest map mounted on cloth, and in addition, under glass, the recreation map and a couple of frames containing specimens of the most common wild flowers of the region. Plans are under way to increase the number of frames with flowers. The Black Hills region is the meeting ground for eastern and western flora and presents endless possibilities along these lines.

District 3

The death of former Forest Ranger F. P. Porcher occurred at El Paso on July 1. Mr. Porcher entered the Service in District 5 in 1907 as Guard and resigned on account of ill-health in 1912, at which time he was Deputy Supervisor. In 1914 he reentered the Service in District 3 but resigned last November on account of ill-health.

A sale contract for 15,000 seven-foot fence posts and 3,000 cords of wood on the Ash Fork District of the Tusanyan Forest was awarded to the Puntonney Lime Company. The posts will bring 6 cents each and the wood 70 cents per cord.

H. B. Herms has resigned and goes as cost accountant to the Ordnance Bureau of the War Department. Mr. Herms has three years of service as forest clerk and bookkeeper in the Forest Service to his credit.

The Socorro County Grand Jury failed to bring an indictment against Forest Ranger Juan Carrejo and local peace officers in connection with the killing of the Coopers -- father and son -- near the Jewett Ranger Station last spring. The Coopers were suspected of cattle rustling and lost their lives in resisting arrest.

District 6

F. E. Olmsted arrived in Portland this week in connection with the lumber industry study. While here he will make arrangements for the collection of data on the current production, shipment, distribution, and use of lumber in this region. The information will be obtained from the lumber associations rather than from individual companies.

Lage Wernstedt has returned from the Cispus fire. He has been working, with fifty soldiers, in the vicinity of the Niggerheads and Table Mountain and reports the portion of this fire on the Columbia to be completely extinguished and the soldiers to have returned to Vancouver Barracks. There are still some men at work patrolling the Rainier side of this burn. The soldiers, limited service men of the Spruce Division, made excellent fire-fighters, according to Mr. Wernstedt. Doc Wright, who has been packing supplies to the crew from Guler, Washington, with a 25-horse pack train, has finished this work and will soon resume the transportation of the standard lookout house to the summit of Mount Adams.

One hundred and twenty members of the Portland Mazamas and their friends made their annual pilgrimage to Mount Hood August 10 and 11. Miss Sherman, of the District office, accompanied the party. The annual summer outing of the Mazamas was made on the Wallowa this year. Twenty-two members enjoyed the two-weeks' trip. Camp was established south of Wallowa Lake.

The Weather Bureau is furnishing excellent cooperation in fire protective work. Meteorologist T. Francis Drake called on all Weather Bureau offices in the Pacific States to bring to the attention of the public the special fire hazard expected September 1 and 2, when many picnic and outing parties were expected to spend Sunday and Labor Day in the woods. Mr. Drake is making a special field study of the relation between weather conditions and dangerous fire periods on the National Forests of this District.

Motion-picture Photographer George R. Goergens, of Washington, D. C., and Mr. Jackson visited Wahtum Lake August 17 and 18 and secured 500 feet of film illustrating the recreation use of that region by campers, fishermen, and Boy Scouts. Weather conditions prevented filming the features along Eagle Creek Trail but it is expected to secure these later.

The scarcity of treenail material suitable for use by the ship-building industry of the Pacific Northwest is indicated by the fact that the Emergency Fleet Corporation has recently made tests of the wood of the western service berry. This tree is very similar to the eastern shad bush and reaches a diameter of from eight to ten inches.

The Danaher Lumber Company has denied all responsibility for a fire that occurred on the Snoqualmie and Washington National Forests last summer and damaged the National Forests to the extent of nearly three thousand dollars. The case has been referred to the Forester with the recommendation that it be turned over to the Department of Justice for collection of the damages. This fire started from a railroad locomotive, on cut-over land belonging to the Company.

Negotiations are under way on the Olympic for the purchase of two blocks of airplane spruce which were advertised last fall. They are known as blocks five and six, and each contains about three million feet of spruce suitable for aircraft production. The timber will be cut by the mill of C. R. Hutton, who was the first purchaser of airplane spruce on the Olympic, and who has completed the cut on another block.

Seventeen million feet of timber recently advertised on the Rainier was sold to the Manley-Moore Lumber Company at the following prices: Douglas fir, western red cedar, western white pine, and spruce, $1.65 per M; noble fir, $1 per M; western hemlock, 60 cents per M.

Logging Engineer Andrews has been in eastern Oregon for the past few weeks, assisting the Baker Committee on airplane lumber production in their efforts to secure aircraft lumber from western yellow pine. This work is being done at the request of the Bureau of Aircraft Production.

District Engineer P. H. Baker is making a field examination of the Skagit Power Project, in the development of which the city of Seattle is interested.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

September 9, 1918.

All-Veneer Hydroplane Pontoons

Wood has come back to its own in the making of veneer pontoons for hydroplanes after having been crowded out for a short time by steel wire and fine linens. Hydroplane pontoons are the small boatlike flats attached to the hydroplane to keep it on top of the water when there is engine trouble or when for some other reason the plane prefers the water to the air.

According to Mr. Theler, progress in developing the veneer pontoons has advanced so far as to indicate that wire and linen pontoons will soon no longer be in use.

This development in pontoons is made possible by a satisfactory grade of waterproof glue and improvements in the manufacture of veneers.

The development has gone so far that no wire at all is used to brace the hulls, and even the linen covering has been abandoned.

There are several types of pontoons, which vary with the machines using them. The large type is several yards in length and two or more yards in width, and is used with twin propeller machines, the propellers operating on both sides of the pontoon. The newest type consists of a long, narrow box which gradually thins out toward the rear so that the end touches the water only when the craft is tossing about on the water or when undue weight is placed toward the rear. This second type uses the minimum of water surface automatically. A third type a double float, with the second or supplementary float entirely out of the water at the rear and only touching the water when the plane is tossed about badly, in which case it acts as a balancing float or stabilizer.

At the present time all training-school hydroplanes are being equipped with the new type of all-veneer pontoons.

The Forest Service is actively cooperating with the industry in the development of this phase of wood veneer.

In Practical New England

White pine timber for war uses is in great demand in Maine at the present time, according to Austin Cary, who has just returned to Washington. Mr. Cary says that the portable mills are having their share of trouble with labor and the other things that make difficulties these days, but they are managing to turn out considerable lumber. One Maine concern is putting as much as four million feet of lumber a month into strictly war uses.

Many a farmer is now on Easy Street after years of hard struggle, and the reason is that as much as $15 per thousand feet has been paid recently for bodies of white pine. Mr. Cary shed many a tear in telling us how the present going prices for spruce reminded him that 25 years ago he could have bought a half-township for $5,000. It was cut-over land, to be sure, but mighty good as he knew even then, and less than a year ago similar land brought $25 per acre.

We have been unable to figure out whether Mr. Cary left Washington for Maine and could not keep away from work, or whether he started on his trip on official business and then found himself inoculated with vacationitis. However, we did learn that he found some congenial souls greatly interested in timberlands, and gave them considerable advice.

Cary planted about a thousand young pine trees for the biggest sheep raiser in New England, who owns a thousand acres, about a quarter of it wooded. To a firm which has in mind the planting of a five-hundred-acre lot from which the timber is being cut at present he supplied some good advice. This concern is using an interesting type of mill plant. It is an electrically-operated six-foot band with ten-inch saw, and has about 100,000 weekly capacity in round-edged lumber. Power is supplied by cross-country power line. The wood economy of this plant, as against the circular-saw type, was given careful consideration by the operators and as an operating unit is economical for lots of a million and upward.

Returning to country familiar of old with eyes opened by broad observation, Cary says he saw some things more clearly than formerly. That was particularly true of the relation between timber growing and pasturage. Reproduction of pine in that country seems now to come far more freely on old pastures and fields than anywhere else, and to be safe from competition in such places. Pasturage of timber lots, too, keeps hardwood brush down and so helps to keep the land in pine timber. He took some photographs showing these relations and stands of timber grown up in such conditions. He says also that numerous residents of the region understand these matters in a general way, and that some are using sheep and cattle designedly in the interest of their pine timber. The upshot of Cary's observations is that forestry is a very practical matter in parts of New England.

State Councils of Defense to Cooperate

State Councils of Defense with all of their subsidiary organizations have been informed by the National Council regarding the war work of the Forest Service and instructed to cooperate in every possible manner. No special instructions have been issued as to the form such cooperation should take, on account of the special local problems that will be involved in each case.

Suggestions were made to the local Councils that assistance could possibly be given in locating lumber essential for war purposes, in encouraging the use of wood for fuel, and in the prevention of forest fires.

Mileage vs. Mileage

Forest officers owning automobiles and using them in connection with their official duties are looked upon by the non-car-owning officers with envy and pity, envy because of the fact that through thrift or otherwise they have found it possible to become owner of a car, and pity because they use the car on official duties under conditions that question seriously their mental balance.

A Forest officer on foot or on horseback gets off the beaten track and penetrates country and undergoes risks no ordinary mortal would tackle. The same holds true with the owner of a machine. Inspired by the prospect of the five or six-cent per mile reimbursement, if all goes well, he takes his car into the mountains over roads, stumps, and trails that no livery man would ever take a chance on.

This use of a personal car to haul not only the owner but freight, supplies, and visiting Forest officers has several interesting angles, especially when considered in connection with the cost of livery machines for similar service. When it is possible to get a livery machine, the rate is ordinarily from 25 to 35 cents per mile, and not infrequently 50 cents. Compare this with the five or six cents the Forest officer gets. Furthermore, not infrequently only the older machines are turned loose by livery men for these mountain trips. This means tire, engine, and many other troubles. There is on record a trip made in three hours running time, but requiring four hours additional time for repairs. Another trip brought the Forest officers back to town at 3 a. m. after a start at 8 p. m., whereas they should have reached town somewhat before midnight at the latest. A trip is on record where the rate was $15 per day and a whole day was required to make 25 miles, owing to the poor condition of the car rentable for mountain travel. The same trip on the same day was made by Forest officers on 5-cent mileage for $1.10, and in less than two hours.

Several adverse-weather trips stand out, trips that no livery car would have undertaken. Five Forest officers drove 102 miles in a single day, through rain, mud, slush, and snow. The morning trip was made to be present, as per previous promise, at a Forest users' meeting. The afternoon and all-night trip (they did not get home until 2 a. m.) was made to save the Government a one-day Class A per diem of $4 each for five men. The $20 saved was spent several times over by one of the Forest officers buying en route tires and inner tubes.

There is a disheartening entry on the private books of the Forest officer, though profit comes to the Service by the payment of this mileage, but then there is the important fact that the Forest officer using a machine is able to do two men's work by his ability to cover country in fast time. This saving of time is especially valuable in these days when good men are scarce--and the good men are the ones owning the machines. The question now is whether there is any relief in sight.

Mining Claims and Timber Sales

One of the established industries of the Black Hills region is the location of mining claims.

Examination of a tract may reveal several discovery holes, made possibly ten or twelve years before, with an ancient location notice attached to a nearby tree. Then the question arises, is it a valid location? Diligent search may fail to reveal any development work, but if the Forest Service assumes that the location is abandoned and sells the timber, it is an even bet that the indignant prospector will show up and demand the reason why *his* timber is being sold.

The question as to the exact status of old mining locations is becoming a vital one as far as it concerns the timber-sale business on this Forest and forms one of the chief questions to be settled on practically every sale. As a matter of fact, it forms a most serious menace to the mining industry itself, for under present conditions almost every old prospector holds claims greater in number than he can possibly develop. He has no resources to do the work and will not sell except for a fabulous price and there the matter stands with the ground held out from development by operators who have the requisite resources.

The Manual seems to be clear enough in its definition of a valid claim. But recently, having had the pleasure of hearing a good deal of discussion by learned gentlemen of the Bar who know, I now have a vague idea that the conclusion was to stay off *all* mining locations unless the locator gives a release. If this injunction is followed, it will be a sad day for the timber-sale business on the Black Hills.

E. W. TINKER.

From The Bulletin, District 2, August, 1918.

Rhode Island Wants to Cooperate

Rhode Island has made application to the Forest Service for cooperation in fire protection under the provisions of the Weeks Law. Twenty-three States are now lined up with the Forest Service in cooperative fire protection.

F. B. Moody Dies

Word has just been received of the sudden death from pneumonia of F. B. Moody, who for the past three years has been in charge of forestry in Wisconsin, as a member of the Conservation Commission. Mr. Moody's activities have been such as ordinarily fall to the State Forester.

Governmental Bureau of Information

Approximately 250 cards on the work of the Forest Service have been furnished to the Committee on Public Information to be incorporated in the card index on war activities.

A special office of information on all Government activities has been organized for the assistance of the Government employees and others who may have occasion to get in touch with the various Government agencies.

Additional 640-Acre Designations

The Secretary of the Interior has just announced the designation of additional lands under the provisions of the 640-acre law as follows:

In Oregon, 145,000 acres situated in a fairly compact body east of the Malheur Forest; in Colorado, 130,000 acres in a compact body northwest of the White River Forest; in New Mexico, 435,000 acres in a solid body around the town of Sumter and east of the Manzano and Lincoln Forests; in California, 72,000 acres almost surrounding the Monterey Forest and 25,000 acres west of the Sequoia, which comprise practically all the lands recently excluded from the Sequoia. The lands designated in the Sequoia area come right up to the boundary of the Forest and if fencing is done promptly will go quite a way towards settling boundary troubles.

Washington Notes

The business manager of the Weekly Bulletin was given a severe shock last week on receiving official notice from the Postmaster at the Presidio, San Francisco, that one of the addressees had refused to accept the Weekly Bulletin and requested that no further copies be sent. The Editors' Rule Book does not contain any rule applicable in cases of this kind; decision has, however, been reached to let the name of the subscriber fade away into oblivion. Perhaps he will soon see the error of his ways and ask to have his name restored to the mailing list.

Forest Inspector Carter is back at his desk from a two-months' trip to Districts 1 and 6, where he put in his time on general inspection in connection with activities of the Branch of Silviculture. Mr. Carter says that the lack of labor is the big factor affecting the lumber industry.

Forestry literature is branching out, according to American Forestry, which in a recent monthly list of current literature opened the new heading "Forest Athletics" and placed thereunder Professor Waugh's recent bulletin on Landscape Engineering in the National Forests.

J. A. Mitchell has left town on a six-weeks' trip to Michigan and Wisconsin in the interests of fire cooperation under the Weeks Law.

District 1

Forest Supervisor J. F. Forsythe of the Kaniksu leaves for military service next month. He has submitted his resignation to be effective October 15.

District 2

"Good Morning! Have you used Dutch Cleanser?" This bids fair to be the new slogan for this District if the suggestion recently made by Forest Examiner E. S. Keithly is adopted. Mr. Keithly suggests that each Forest officer include a can of Dutch Cleanser in his pack to be used in cleansing defaced Forest Service signboards. As things stand now the Forest ranger has just about enough impedimenta to carry and the question arises as to where he will put the additional equipment of rags or scrubbing brushes.

The fire situation in this District has continued to be very good, the only exception being a very dry spell in southern Wyoming and northern Colorado.

More than 2,000 visiting cars participated in a Tourists' Parade recently held at Colorado Springs. The participants were for the most part from Oklahoma, Texas, and Kansas, and without doubt camped on the Pike Forest while in the State on account of the proximity of Colorado Springs to the Pike Forest.

The Monument Nursery is located but 2½ miles from the Denver-Colorado Springs Highway, with which it is connected by a good road, and has been visited by a large number of tourists. Boy and Girl Scouts have camped there at various times during the summer.

The Nursery has been made particularly attractive by a profuse growth of columbine, the State flower of Colorado. Mr. Schrader, in charge of the Nursery, sowed a lot of columbine seed around the Nursery early last spring. The columbine has become practically extinct at the lower altitudes, but grows in great profusion at the higher altitudes and so the appearance at the Nursery was an uncommon sight for the visitors.

Report comes from Ranger Don C. La Font of the presence of a young mountain sheep among a herd of sheep grazing on the Rio Grande Forest. The buck lamb is in fair condition and very tame. The lamb will be brought out of the mountains when the sheep are removed from the Forest in fall, and winter-fed and put in condition to be turned loose on the range next spring with a fair chance of being able to escape destruction from coyotes. If left to shift for itself during the coming winter the mountain sheep would probably succumb to coyotes or starve to death.

The following puzzle letter is a fair sample of correspondence received by the Forest officers on the Rio Grande Forest:

"Agua de Ramon, Colo.
8/7 the 1918.

My Diar Frinde:

Please yuo sande to me a Permittee For 100 loger white spruce 18 feet longi and 8 incher ande the bigo an and 75 Polder gren quek as

Andrez Gurule."

District 3

More than $1,000 was collected for the Red Cross at the Red Lake barbecue. Supervisor Yarnall and Ranger Ray of the Tusayan represented the Forest Service.

Former Deputy Supervisor Warner of the Apache, now second lieutenant, is assigned to the Field Artillery and stationed at Camp Taylor, near Louisville, Ky. Lieutenant Warner has been made instructor in Field Artillery, Officers' Training Corps.

Lightning killed two horses belonging to Ranger Gaines on the Lincoln.

Cattle rustling and other nefarious practices that have recently become rather frequent in New Mexico will be made unpopular through the revival of the New Mexico State Mounted Police. For the present the force will consist of a captain, two sergeants, and 17 men.

Word has just been received of the death of Richard Judd, of the 10th Engineers, former Forest guard on the Apache. Judd died in London, April 12, of spinal meningitis.

District 6

Surveyor George W. Root returned this week from three months of entry-survey work on the Tongass and Chugach Forests in Alaska. Metes-and-bounds surveys were made for sixteen homesteads on the Tongass and two on the Chugach. Practically all of these were for land at creek mouths on the coast, where the settlers are making their homes, and piecing out their living by fishing or cannery work when not engaged upon their ranches. Mr. Root reports that mosquitos were specially troublesome this season, because of the fact that the heavy snow of last winter was late in melting, which left surface water on the ground most of the season and thus provided excellent breeding places for the little pests.

The summer camp of the Boy Scouts of America at Wahtum Lake on the Oregon closed its session this week. The permanent camp building, 50 feet by 100 feet, is nearly ready for its roof and is expected to be finished this fall. The construction camp at the lake is in charge of W. A. Langille, a former member of the Forest Service.

Eagle Creek Camp and Picnic Grounds, on the Columbia River Highway, 45 miles east of Portland, attracted more tourists this year than ever before. At three o'clock Sunday, August 25, there were 600 automobiles parked at the various camping places along the loop road and on the special parking places on the grounds. The road and parking places have been surfaced with crushed rock. It is estimated that thirty-five hundred people visited the grounds last Sunday. A Forest officer who made the trip from Wahtum Lake to Eagle Creek Camp Grounds last Sunday, met twenty persons on the trail above the high bridge. On the four-mile stretch between the high bridge and the camp grounds he met one hundred and seven persons using this scenic trail.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

September 16, 1918.

Additional Commissions in the 20th Engineers

Eighteen additional battalions for overseas duty with the 20th Engineers (Forestry) will be organized by Lieut. Colonel H. L. Bowlby, who has returned to this country for this purpose.

Applications for first lieutenants' and captains' commissions may be sent to the office of the Chief of Engineers. Commissions will be given only to those who can meet the requirements as to executive and practical experience in logging, sawmill, and lumbering operations. Applicants must be engaged in the active practice of the lumbering business.

The age limits are 31 to 38 years for first lieutenants and 36 to 45 for captains. These limits may, however, be varied in special cases except that no one between the ages of 18 and 30 will be considered. No set rules have been established. The Examining Board will determine the fitness of the applicant for commission on the showing made as to qualifications and experience.

All applicants accepted by the Examining Board will be commissioned within ten days or two weeks and then receive orders to report at the Engineer Officers' Training Camp at Camp Humphreys, where they will be given a short course in military training previous to assignment to duty with the 20th Engineers.

It will be required of the applicants not only that they be qualified by training and experience, but also that they possess the requisite qualities of leadership and temperament to fit them for the command of troops. Each individual will be considered separately just previous to the completion of the course of instruction and on the basis of the showing made will either be allowed to retain his commission or will be honorably discharged. While at the training camp the men will receive the pay of their rank.

As Others See Us

An interesting account of a study of American forestry is contained in a new book by E. H. F. Swain of the Queensland Forest Service, entitled "An Australian Study of American Forestry." The author spent about a year in this country putting in most of his time in District 1 and the Pacific Northwest. Mr. Swain is very approving of the methods of the Forest Service and his recommendations for a reorganization and extension of the Australian Forest Service are patterned after the U. S. Forest Service.

War conditions are not overlooked by the author and he suggests that returned soldiers of suitable bent be given preference in opportunities and that each appointee be given a short course of training at a special Forest School before being assigned to duty.

The following quotation may be of interest:

"One of the outstanding features of the administration is that, having carefully selected its officer, it trusts him. If his estimates are approved, the officer has virtual carte blanche. From District Foresters down, the same principles apply. Officers are unhampered in their work by red tape or divided responsibility. Responsibility is fixed and centered in the individual. Success or failure is the supreme test.

"An ideal atmosphere for effective work has been created. There is a marked esprit de corps. The forest badge is worn with a certain pride. Every officer is an enthusiast, he has devoted himself to the cause of forestry, and is striving for maximum efficiency.

"The whole Forest Service moves like a machine in an atmosphere of harmony. Every officer is allotted his own particular task, and there is mutual trust and cooperation and esteem.

"It is not surprising that development has been so remarkable."

In another place he has the following to say - "The office methods of the U. S. Forest Service are characteristically direct and logical. Essentially, there is an especial place designed for everything, and everything is made to fit automatically into that place.

A roomy tidiness, an absence of papers, and a surrounding presence of oak cabinets, are the general impression of the observer. These results flow from the filing system adopted."

Since the recent clean-up in the Atlantic Building the last statement is applicable even there, although it is believed the author at the time had reference to field conditions only.

Committee on Paper Conservation Submits Report

Many interesting phases of possible paper conservation were discovered by the Committee on Paper Conservation recently appointed in the Washington office.

The present paper situation demands conservation above all things, so that there must be loss in convenience. The absolute necessity of curtailment of paper production forces a correspondingly restricted consumption. Costs are no longer the determining factor, the question is now how far can we reasonably go in lessening requirements.

In making its investigation and report the Committee had these principles in mind. Some of the economies suggested were the following:

The Forest Service has always placed great emphasis on neat letters; present conditions justify in some cases minor changes or corrections by pen and ink without re-writing. This applies particularly to internal correspondence and other letters where appearance is not important.

The question of single spacing was given careful consideration. It was not thought advisable to advocate single space in long letters. It not only involves eye strain but also increases the possibility of spoilage through difficulty in making corrections, slipping of the lower carbons when a large number of copies are made at one operation, and the greater loss of time in typewriting through the efforts of the typist to avoid errors.

Single spacing is advocated in the case of brief memoranda and letters which would run on to a second page if double-spaced, and where there are no considerable number of carbons made. Where single-spacing is used double-spacing between the paragraphs is recommended. Pending action by the Forester, the existing instructions for double-spacing are of course still in force.

At the present time the quality of stationery used for letters is high; economy in this respect could be obtained by the use of paper about one grade lighter in weight. It is not felt advisable to have different grades of stationery for internal and external use. To do this would necessitate carrying two supplies by every individual writing letters, which would increase the stock carried and also create frequent confusion as to the grade to use for particular letters. One grade for all uses is by far the best economy along these lines.

Along with this standardization of stationery the Committee recommends that approval be withheld from all orders for special paper to satisfy personal ideas unless absolute need and advantage to the Service as a whole can be shown. At present there appears to be no real check in this connection.

Considerable paper is consumed for internal reports for which at present the best grades of paper are used. It is felt that an economy could be effected here if light weight paper were provided.

The preparation of reports - longhand for later copying - can be done on mimeograph wastage or other papers having a clean side. In the Washington office such material is padded for convenience in handling and use.

The investigation disclosed the possibility of greater economy in the use of envelopes in connection with the forwarding of the daily output of the Washington office for the Districts. As things stand at present there is no bunching of mail on the part of the office as a whole for the Districts. Each branch mails out its daily output, and as a result the District offices may receive a number of envelopes whereas the material could in all probability be forwarded in one or two large Manila envelopes. The absence of a central mailing office in the Washington office presents more difficulties, none, however, so great as to be insurmountable.

Economy should be exercised in the use of printed forms and in all kinds of field printing and publications as well as stationery.

It is not thought desirable that there be much exchange between Forests of the individual field bulletins now issued. This is especially so between Forests widely removed, in other Districts, or where there is absolutely no similarity of interests or conditions.

Corrections of the Manual are now made quarterly and as each change represents the use of considerable paper of a good quality and involves much time in making the substitution, it is recommended that changes be made semi-annually only, in April and October.

The salvage of waste paper was also considered by the Committee, and some startling discoveries resulted. It was found that the vault in the basement of the Atlantic Building had developed into a repository for much material, perhaps of value at one time, but at present only space-consuming and useless as far as the current conduct of business is concerned. Accordingly, there was a house-cleaning and tons of paper were excavated and turned over to the Public Printer for salvage.

In this connection, members in the Atlantic Building were asked to cooperate by the contribution of old Government publications with which many of the offices are very badly littered up. Some response was obtained. There appears to be a tendency to build up unnecessary collections of all kinds of publications.

In most instances the publications are readily accessible in the library. Collections of publications call for office furniture that might well be gotten along without. Individual collections should be restricted to publications of immediate and current interest and use in connection with the special subject on which the occupant of the room may be engaged.

Wood Fuel Campaign

A conference was held during the past week by representatives of the Forest Service with the Fuel Administration in the interests of inaugurating an active wood fuel campaign under the auspices and active direction of the Fuel Administration.

It is hoped to persuade the Fuel Administration officials that wood is a very important factor and that the question is of such vital importance as to justify serious attention and is not to be taken up only when press of other matters dies down.

Classification of the Personnel

The personnel of the Forest Service consisted of 3,382 employees on June 30, 1918, according to the annual statistical report. In addition, about 249 men were on furlough and military leave at the time.

The official designations for the different classes of employees are very varied and it requires 102 classifications to cover all of them. The most numerous class is that of Forest ranger with 1,027 employees, Forest guard is next with 766 employees, followed by clerk (S. & T.) with 382.

The remaining classifications include smaller numbers of employees in varying numbers and in many instances show but one of a kind, which may be taken either as indicative of a great variety in the work of the Forest Service or of special characteristics in the lone representative.

Cooperative Marketing at the Laboratory

Cooperative marketing of household staples has been under way at the Madison Laboratory for almost two years through the instrumentality of the Forest Products Association, which is made up of employees of the Laboratory.

The Association was organized to devise means to meet the continually increasing cost of living and to get the most out of the salaries which were lagging behind.

After a year's experience under a rather cumbersome method of business a reorganization was effected which is proving very satisfactory. A working capital of approximately $200 was raised; a small stock of staples put in, and a small store built in an unused portion of the laboratory.

The capital was built up by the issuance of stock certificates bearing interest at the rate of 3 per cent and membership dues of $1.00 each and a ten cents assessment for postage.

Supplies are purchased in wholesale lots and retailed to the members at the purchase price. A discount of 1 or 2 per cent is obtained on payment of cash in ten days. All necessary work at the store is performed by members of the association without compensation. Privilege of dealing at the store is limited to members of the association, which at present numbers more than 100 members.

It is estimated that sales for the present year will approximate $5000 with a saving of not less than $1000 to the members.

A Word of Explanation

The conservation of paper has hit the Weekly Bulletin, and accounts for the new and rather puzzling appearance and make-up of this and the two previous editions.

Experiments have demonstrated that both sides of the sheet can be printed satisfactorily, even with the mimeograph, under certain conditions. Whether it will prove economical with the Bulletin, which has to be printed speedily in order to be of value and to get the news out before it is stale, has not yet been satisfactorily demonstrated.

The quality of the paper and the ink and the amount of time available for the operator to turn out the printed copies, all have a bearing on the question, not forgetting the patience and eyesight of the readers.

We are not prepared to state that our efforts along these lines have been satisfactory. Our business manager is hard at it and we hope that final results will make possible a readily readable, non-blotted, and easily handled bulletin strictly conservative but full of interest.

Departmental instructions require that, to save paper, the subject-matter of all bureau house-organs be kept down to the minimum and that whatever is not of direct and decided value be left out.

Registration Day in the Washington Office

Superannuation of employees received a blow on registration day when about eighty men became possessors of the blue card and set up a new age for old men.

Registration has had a good effect on all the men in the Atlantic Building. Their step is more elastic, their shoulders are thrown back, and there is a happy gleam in their eyes.

Registrants in the Forest Service are to have the assistance of Messrs. McConville, Mangan, and Squire in executing questionnaires.

Too Many Mahoganies

In the trade more than fifty different woods parade as mahogany, which leads to endless confusion and misunderstanding. The true mahogany comes only from tropical America. East Indian and African mahoganies are of high quality and are sold in the United States in large quantities without resort to special trade names or other subterfuges.

The disturbing factor in the mahogany market is the appearance of woods from the Philippines under the guise of mahogany which by no means justify the appellation. The term "Philippine mahogany" means really nothing more than that the origin of the wood is indicated.

The Forest Service has been asked to identify and classify the various mahoganies so that purchasers in this country will have some definite guide in making specifications. Samples of woods on hand present a considerable variation in physical and mechanical properties.

Forest Service Section in Surgical Dressings

Work on surgical dressings is to be resumed on September 16, according to announcement made by the Chairman of the Surgical Dressings Committee of the Department's Red Cross Auxiliary.

For several months previous to August 10 the Forest Service Section of this necessary war work was represented by a large number of women and a mighty small bunch of men. This is not as it should be. Surely we men are as patriotic and anxious to do our full share as the women! Probably the only reason why the men have not been represented in larger numbers is because the average man assumes that the work can be done by female fingers only. Not at all.

The work consists in folding the many kinds of bandages and surgical dressings required - Red Cross and Army Hospital. It is surprising how rapidly the average man gets on to the hang of things and turns out bandages that in quality and quantity compare favorably with the work done by the ladies.

Men, turn out next Thursday afternoon. Immediately on close of office proceed to the Homer Building at 13th and F Sts. - entrance on 13th St. - and stay until 6 p.m. The work room is on the third floor.

Workers should equip themselves with a long apron and either a paper or cloth cap. You will like it and find time goes all too quickly.

Come on boys, the water's fine. Don't let the women beat us at this kind of war work, just because you had a notion that the work was not a man's job.

WILL C. BARNES.

Tin Cans Canned

The use of tin containers has been greatly restricted by the War Trade Board. As a result the Forest Service has been called on to assist in experiments which have in view a general substitution of wood fiber containers for tin wherever possible.

There is a decided stringency in the tin can market and this seems possible of relief only by restricting the use of tin to containers of such commodities as cannot be successfully and satisfactorily packed otherwise.

War Brevities

Captain Stanley L. Wolfe has been assigned for duty on the General Staff according to advices received in Washington. Captain Wolfe went "overseas" with the 10th Engineers as lieutenant.

Washington Notes

Old Forest Service publications have been coming in very slowly during the past week. It is felt that all old Forest Service publications in the field have not yet been unearthed and suggestion is made that the matter of sending them in be not overlooked. The Rio Grande contributed 46 bulletins, the Santa Barbara 44 bulletins, and the Madison Laboratory 2 copies.

Forest Inspector C. G. Smith has left on a Western trip which will take him to Districts 3, 4, and 5. Mr. Smith expects to be absent from Washington for at least two months.

Capt. H. P. Baker, formerly of the Forest Service and more recently Director of the School of Forestry at Syracuse, dropped in at the Atlantic Building. Capt. Baker belongs to the Infantry but is at present on official detail to Washington in the Intelligence Division. He has hopes of getting away at an early date.

W. D. Brush returned to Washington for a breathing spell after having put in all summer in the field stimulating walnut production. According to Mr. Brush a plentiful supply of walnut for present needs of the operators has been uncovered.

George B. Sudworth made a flying trip to Durham, N. C., during the past week to apply dendrology to some trees of that locality in need thereof. Mr. Sudworth did not return with any of the important products of Durham, much to the regret of the members of the Washington office who had high hopes that Mr. Sudworth would return with some souvenirs.

H. S. Betts has taken a flyer to Dayton, Ohio, for a conference on airplane construction matters. If the new ideas are put to use we expect to learn of Mr. Betts' return by the aerial route, especially as common train travel is very annoying these days.

District 1

The Forest Service exhibit at the Montana State Fair at Helena which opened last week is in charge of K. D. Swan.

The recently completed study of climatic control of forest types made under the auspices of the Experiment Station claims to have found that the different forest types are confined to regions with given summer temperature and annual precipitation and that the excess or deficiency of either become limiting factors.

On the basis of this study yellow pine forests require a summer mean of from 60 to 65 degrees and rainfall of from 14 to 19 inches per year. Lodgepole pine - Douglas fir forests require a summer mean of but 54 degrees, western white pine and larch-Douglas fir a little less. Prairies result whenever the yearly downpour falls below 14 inches, regardless of the temperature.

The study seems to bring out clearly that the three east and west District Sections have their own distinct rainfall type.

The type west of the Bitterroots shows a January and November high precipitation characteristic of the Pacific Coast type, but also a high precipitation in May. The Flathead and Bitterroot Valleys have the same type of precipitation, but lesser amounts, while east of the Continental Divide there is no January and November high point precipitation, but a greatly increased May and June downpour, which is a part of the continental type of rainfall.

The western white pine region has a lower July and August rainfall and humidity and greater amount of sunshine than any other section of the District. This probably explains why fires become more dangerous here than elsewhere in the latter part of the summer. A more luxuriant vegetation is also found here.

District 2

Field inspection trips are the order of the day in the Office of Grazing. L. H. Douglas is out on a three weeks' trip on the San Juan Forest. Mr. Hatton, in company with J. D. Figgins, Director of the Colorado Museum of Natural History, will make a trip on the Pike Forest. Mr. Figgins is much interested and somewhat concerned in the effects sheep grazing may have on the nesting of the ptarmigan. It is expected that the foundation will be laid for a clear understanding between the Forest Service and the department represented by Mr. Figgins as far as conditions on the Forests in Colorado affect bird life.

The whorled milkweed is the subject of a bulletin just issued by the Agricultural Experiment Station of the Colorado Agricultural College under the title of "A New Poisonous Plant." Reported losses from the plant have been more common this season than ever before and considerable concern is manifested in some localities. Mr. May of the College has been busy all season in the effort to discover some practical means of control or eradication. It is felt that considerable difficulty will be encountered in working out a practical means of control on account of the root stock habit of the plant.

Earmuffs, wristlets, and foot warmers were much in evidence in the District Office during the wintry days of the past week. Investigation disclosed that the loss of heat was not caused by efforts at coal conservation by the Engineers but through the absence of valves on all the radiators in the building. It appears that early in June the valves from the 400 or more radiators in the New Federal Building were removed and sent to Chicago for repairs. Rumor has it that the valves were started on their return journey on August 19.

Raymond R. Colyar of the Office of Geography expects to don the khaki within the month. Mr. Colyar has just been released from the hospital where it appears he indulged in a preliminary bout with the Germans while under the influence of the anaesthetic. He emerged triumphantly from this encounter and says that he feels very fit for the bigger fray.

District 3

Forest Examiner R. L. Hensel will be transferred from the Santa Rita Range Reserve at his own request. Grazing Examiner Chapline is temporarily in charge pending the selection of Mr. Hensel's successor.

District Engineer Long has been detailed to Camp Cody, Deming, New Mexico, to assist in putting the military roads at the camp in good condition, in response to a request from Major H. C. Bartlett, Camp Quartermaster. The entire engineering organization at the camp will be put at the disposal of Mr. Long.

The Sacramento Mountain Lumber Company has purchased 1,500,000 feet of timber on an area of 80 acres adjoining their present sale on the Lincoln Forest. The question of brush disposal is a serious one on account of the dense stand of Douglas fir in the mountains. Present standards provide for the lopping of all tops and scaling the branches in the openings. As it is, many large piles and windrows result, and it is proposed to try burning these larger accumulations of brush during the rainy season.

Paul H. Roberts has been promoted to the position of Inspector of Grazing as successor to E. N. Kavanaugh, who left for District 6 some time ago. Mr. Roberts has been in District 3 for some time. He is a graduate of the University of Nebraska from which he has received the degree of Bachelor of Science.

District 5

Deer meat was on the bill of fare for the inmates of the Plumas County Hospital through the efforts of Ranger W. W. Douglas. While repairing the Government telephone line near Buck's Ranch, Ranger Douglas saw J. L. Howard, a sportsman from Marysville, returning to camp with a deer minus its head. Examination proved it to be a doe and so Howard was given a free ride to Quincy where the Justice of the Peace extracted $50.00 and the doe from him.

District 7

Rudolph Dieffenbach has left Washington for Asheville to take up his new duties as Forest Supervisor of the Pisgah Forest, succeeding Verne Rhoades who resigned to enter the military service.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

September 23, 1918.

District Rifle Team Wins Prize

For the sixth time the famous Hilton Trophy has been captured by the District of Columbia, in competition at the National Rifle Matches just held at Camp Perry, Ohio. The District team on this occasion was composed entirely of civilians and is the first civilian team to win the trophy during the whole thirty-nine years it has been in competition. The trophy is a massive bronze plaque valued at $3,000.

Fifty-five teams competed, drawn from the Army, Navy, Marine Corps, and civilians. The District team stood ninth in the competition, being outranked by seven Marine and Navy teams and the Cavalry team, but in turn leading all civilians and the Infantry team.

The individual members of the winning team receive the Class A medals presented by Congress. Forest Examiner Reynolds was the only representative of the Department of Agriculture on the District team.

The National Match course consisted of 10 shots rapid fire at 200 yards sitting, 10 shots rapid fire at 300 yards prone, and 20 shots slow fire at 500 and 600 yards respectively.

The Model 1917 rifle (commonly called the Enfield) was used. This rifle is without a wind-gauge and must be held to one side to overcome wind effects. All shooting was done with ammunition issued by the Ordnance Department, no special ammunition being permitted.

The match was held under warlike conditions from the weather standpoint, for during the entire three weeks the weather was unusually cold, windy, and rainy and camp and the firing lines were at times very wet and muddy.

Acting District Forester Rutledge, with three other Forest officers from District 1 were members of the Montana State Team. Mr. Rutledge won second place in the Marine Corps Cup Match, and fourth place in the Wimbledon Cup Match in which there were 920 entrants.

"Toot Sweet"

The following, both the prose and the verse, is from a letter received by a member of the Washington Office from her nephew, who is now flying in France:

> "I think I told you in a former letter that the one French phrase which all American boys use is 'Tout de Suite' (pronounced Toot Sweet). It is so common that we jokingly called it America's Battle Cry and I believe the French are inclined to think that the theme of our whole existence is 'Tout de Suite,' meaning 'hurry,' or 'immediately,' or 'quickly.'

America's Battle Cry

(Tout de Suite)

Now wars have been since the world began,
And armies are nothing new,
And each one has its battle cry
That it raises amid the hue.
Our land is broad from sea to sea,
Our people have many a creed,
But all have one universal cry--
A continual call for speed.

Tout de Suite, Tout de Suite, Tres Vite, Garcon,
Tout de Suite, you cobbler man!
I'm used to hustle and bustle and rush,
For I'm an American!

We landed in this fair land of France,
A land with her customs old,
Where voices are low and movements slow,
Albeit her sons are bold;
We missed the roar of old New York,
So started a roar of our own,
And the Frenchmen thought we were crazy when
We yelled in a lusty tone:

Tout de Suite, Tout de Suite, Tres Vite, Garcon,
Our coffee, Tout de Suite, Madam,
I'm used to hustle and bustle and rush,
For I'm an American!

Our boys in the trenches must learn to wait,
For war is a waiting game;
And orders are orders to be obeyed,
No matter from whence they came.
Tho' the Boche may lie in his trench so dry,
While we're in a sea of slime,
We'll hold our head 'til the charge is played
And we hear the bugle chime.

Tout de Suite, Tout de Suite, Tres Vite, Sammie!
Tout de Suite, you infantryman!
It's over the top with a rush you go,
For you're an American!

The skies reveal my battlefield,
A field where speed is king,
Where you win or die in the wink of an eye,
And so "Tout de Suite" I sing.
When my time is come and my fight is done,
When my wings are torn away,
When my motor is dead and I'm falling like lead,
I'll look to my God and pray:

Tout de Suite, Tout de Suite, Tres Vite, Oh Lord!
Tout de Suite, I pray you, Amen!
Let me die, Tout de Suite, as I've lived, Tres Vite!
For I'm an American!"

Caesar Outdone

Field work to stimulate walnut production is to be carried out on a new basis by dividing the country into seven industrial districts, each in charge of a representative of the Forest Service who will maintain field headquarters.

District 1 comprises New York, Pennsylvania, and New Jersey; District 2, Ohio, West Virginia, Maryland, and Virginia; District 3, Indiana, Illinois, Kentucky; District 4, North Carolina, South Carolina, and Georgia; District 5, Alabama, Mississippi, and Tennessee; District 6, Southern Minnesota, Iowa, Nebraska, Missouri, and Kansas; District 7, Arkansas, Oklahoma, Louisiana, and Eastern Texas.

Final assignments have not yet been made in all cases, but as far as made are as follows: District 1 will be in charge of J. W. Stokes; District 2, W. D. Brush; District 3, F. S. Baker, and District 7, C. F. Korstian.

War Savings Stamps

War Savings and Thrift Stamps to the amount of $5,290.55 have been purchased to date by members of the Washington Office from the Stamp Station maintained in the Atlantic Building. This is a good record, particularly so when it is borne in mind that additional purchases are reported to have been made by Forest Service employees at outside agencies.

Arrests for Game Law Violations

Seventy arrests for the violation of the game laws were made by Forest officers during the past fiscal year. This is the largest number on record. California leads the way with thirty arrests, of which fifteen were made on the Stanislaus.

Fiber Containers for Saddle Soap

Several million pounds of saddle soap are to be shipped abroad during the coming year and the Laboratory has been called on to make an investigation as to the best paper container for this purpose. The soap is to be put up in one-pound packages and shipped in wooden boxes. The big problem consists in hitting on a waterproof and airtight can. Paper containers as a rule have very little inherent stability and must be closely packed and tightly filled to prevent collapse in shipment.

Saddle soap contains about 80 per cent moisture and about four per cent free oil, which makes it necessary that the package be waterproof.

Mr. Burden of the Laboratory is in Washington as the representative from the Laboratory to handle the investigation.

Recent Forestry Legislation in Louisiana

It is now unlawful in the State of Louisiana to operate any locomotive, logging engine, portable engine, or stationary engine which burns wood, coke, or coal and is operated or used within two hundred feet of any grass, brush, cut-over, or forest land, unless equipped with an approved and efficient spark arrester and ash pan, according to a law recently enacted.

The administration of this law and the formulation of necessary rules and regulations rest with the Commissioner of Conservation.

Violations have been constituted misdemeanors, with fines not exceeding $100 in case of person, firm, or corporation, and fine of not more than $50 nor less than $5 in case of employees.

Another interesting law is that designating the Caldwell Game Reserve as a State forest reserve and authorizing the sale of the timber by the Forestry Department of the Department of Conservation, so far as this is not inconsistent with and contrary to its use as a game refuge.

All moneys obtained from the sale of the timber are to be placed to the credit of the Forestry Department for use in the purchase of new State forests.

Cooperative Land Clearing

Geese, turkeys, sheep, goats, and man are to cooperate in an extensive program of land clearing to be carried on on a tract of 800 acres near Fairfax Court House, Virginia. The owner contemplates using the land for fruit growing and has made a start toward putting it in shape.

The assistance of the Forest Service was called for in determining the method to follow to obtain a proper utilization of the timber growth, which is suitable for ties, stave material, pulpwood, cordwood, etc. The owner plans to remove the timber in approved lumberman style; then sheep and goats are to clear the underbrush; next the geese and turkeys are to clear off the rest and hunt the insects, and thus protect the trees forming the orchard.

The owner contemplates making the start with an initial squad of one hundred geese. We are not sure, even after a study of Roman statistics, whether this number is sufficient to save the lands and trees involved.

Hunters and Forest Fires

Responsibility for a large proportion of forest fires is placed on hunters by the State Fire Warden of New Jersey. According to the State Fire Warden, forest fires in New Jersey have neither been numerous nor severe in the most dangerous season (the fall) except in the open season for game. The inference is plain. It appears that with the open season for game trouble at once begins and continues for the duration of the open season. With the close of the season fires of this kind cease at once. Also the fires which burn in the open season largely start in such locations and at such times that the gunners are undoubtedly responsible.

The situation in New York is such that the Assistant Superintendent of State Forests issues the warning that there is danger of closing and denying the privilege of hunting in many areas of forest and woodland, unless the users demonstrate their fitness to enjoy the privileges of hunting and fishing during the dangerous fire season without damaging the property.

Every possible effort has been made by the Conservation Commission to reach every sportsman in New York State with a word of caution. Fire warnings have been inserted in the published game laws distributed to all holders of hunting licenses, in railroad time-tables, telephone directories, and newspapers; notices have been posted in railroad stations, stores, and other public places, as well as at suitable camp sites in the woods and along main routes of travel, such as roads, trails, and streams.

National Forest Range Plants

More than 35,000 plant specimens, representing 4,800 species, have been collected on National Forests and Purchase Areas by Forest officers in connection with the extensive studies made of the distribution, natural habits, and economic importance of the range flora.

Ecological and economic data have in most instances been furnished by the collectors of this material and by the grazing experts of the Forest Service. These data have direct application to many phases of range management, such as intensive range utilization, especially with a view to minimum interference with the requirements of the important forage plants and the utilization of each type at the time and by the class of stock to which it is best adapted.

Use of these data is also made in the detection, eradication, and fencing of poisonous plant areas; in natural range reseeding, etc.

The Tie Business

Considerable discussion seems to have arisen in the railroad tie-producing regions of the country as a result of the new tie specifications put in force by the U. S. Railroad Administration.

The new specifications and rules of purchase are putting to an end many old practices and bringing about the establishment of a new system of obtaining ties. The Railroad Administration deals directly with the tie cutter, instead of placing contracts with large contractors who in turn secure the ties from subcontractors, ranchers, etc. Moreover, the price to be paid is established by the Government. Cutting out the various intermediate agencies means that the operator benefits by the new prices paid and is not forced to divide all along the line.

The question as to what constitutes a sap tie has received much attention. The specifications on this point state that "ties from needle-leaved trees for use without preservative treatment shall not have sapwood more than two inches wide on the top of the tie between twenty and forty inches from the middle, and will be designated as 'heart' ties." Those with more sapwood will be designated as "sap ties."

In some quarters it is felt that the new specifications on this point will work very hard against the hewed tie and against the tie cut from very small timber, and to the advantage of the mills which produce ties from good logs.

Ties are to be purchased on the piece basis and not by the thousand feet board measure.

Wood Fuel Exhibits

Special exhibits and enlarged photographs on the use of wood for fuel in place of coal have been prepared by the Forest Service. The exhibits are arranged in five series of one chart and three pictures each. These illustrated stories cover the following subjects:

Fuel from unproductive trees.
Fuel from wood waste.
Fuel from woodland improvement.
Fuel from clearings, and marketing wood fuel.

Each series is mounted in panel form with eyelets for hanging and will cover a wall space 4½ feet high and about 10 feet long, and weighs about 15 pounds packed for shipping. The use of these exhibits may be had without cost beyond the necessary transportation charges, which must be paid by the borrowers. To lessen these charges the Forest Service aims to arrange the itineraries of the exhibits so far as practicable to cut out long-distance shipments and provide for transfer between borrowers.

Progression in Forestry

The mathematical principle of progression is noticeable in many phases of forestry. If a tree is considered a cylinder and grows normally each year it increases its surface as the product of the radius by the altitude, and it increases the volume as the square of the radius by the altitude. Eliminating altitude this means that the surface of a tree increases each year as 4, 6, 8, and 10 or in arithmetical progression. In other words, the circumference of a tree growing normally increases the same amount each year, and it may likewise be said that the diameter increases a given amount each year. Thus it is possible to compute the exact time required for saplings to become large enough for telephone poles. But the volume of a tree increases as the square of the radius, as 4, 9, 16, and 25, which is almost as rapidly as a geometrical progression. Thus while the diameter, circumference, or area is increasing from 4 to 10 the volume has increased in the same four years from 4 to 25. Hence any one who is waiting for the bark or timber of his forest to grow may be sure that his trees are increasing in size at this rate, which is better than receiving compound interest on the money invested.

Since the volume of a tree increases as the square of the radius it is logical for us to assume that the leaf area increases at the same rate, for it is the leaf surface chiefly which produces the annual increase of volume in the tree. Hence the amount of foliage each year is increased proportionately with the amount of wood. If this is true why may we not conclude that the forest floor, composed chiefly of leaves and twigs, is increased in thickness in the same proportion? And if so, the capacity of the humus for retaining moisture is correspondingly increased from year to year.

Mathematical progression is seen at once in the progress of a forest fire. Not considering topography or wind the fire burns in a circle. In one minute the fire burns over a certain area, but in the second minute the total area consumed is four times as great, and in the third minute the total area is nine times as great, while in 60 minutes the total area is 3,600 times as great. The area consumed increases as the square of the radius increases. Moreover, if the efforts of two men could extinguish the fire after it had burned one minute, after two minutes it would require four men to extinguish it, and after three minutes it would require six men. In other words, the burning circumference increases in an arithmetical ratio, and the total area consumed increases as the square of the radius increases. The necessity for attacking a fire in its incipiency is obvious.

Socks Overseas

Capt. R. Y. Stuart has acknowledged the receipt of the forty pairs of socks (more or less) taken overseas by Clifford Woertendyke and sends his thanks to the contributors. The Chaplain of the Tenth will see to their distribution.

Forest Service Road Work

Road work has been greatly affected by the war and all the hoped-for results were not obtained. During the fiscal year administrative action on projects approved under Section 8 of the Federal Aid Road Act was taken as indicated in the following table:

Type of Work	No. Projects *	Mile- Mileage	Liability		
			Government	Local Authority	Total
Survey	8	247.70	$ 23,622	$ 23,778	$ 47,400
Survey and Construction	1	45.00	270,000	40,000	310,000
Survey, Construction, and Maintenance	37	553.85	933,782	1,220,338	2,154,120
Maintenance	1	45.00	..	..	..
Totals (duplications eliminated)	46	846.55	$1,227,404	$1,284,116	$2,511,520
Projects placed under original agreement during preceding fiscal year	4	118.65	187,975	283,975	471,950
Totals for projects placed under agreement during present fiscal year (duplications eliminated)	42	727.90	1,039,429	1,000,141	2,039,570

(*Includes original and supplementary agreements.)

At the end of the fiscal year 43 projects were under cooperative agreement, involving the survey of 1,061.85 miles and the construction of 664.15 miles. The estimated cost of this work is $2,779,620, of which the Government's share is $1,347,554. In addition to the above, 5 projects, involving the use of the 10 Per Cent Fund, were under formal cooperative agreement. These covered the survey of 43.84 miles and the construction of 54.56 miles at an estimated total cost of $152,550, of which the Federal share is $84,509. It should be stated that while a considerable percentage of cooperation is obtained in the 10 Per Cent work, a very minor part is covered by written agreements.

Washington Notes

Old publications were received during the past week as follows:

Stanislaus,	259	publications.
Siskiyou,	19	"
Santa Barbara,	14	"
Wallowa,	13	"

G. G. Anderson has left Washington on a six-weeks' circle tour which will take him to all of the western District headquarters. His first stop will be at Denver.

H. E. Surface is now in town on a winter's detail to the Branch of Research in the Washington Office, where he will be engaged in a study of the pulp and paper industry.

Forest Inspector D. D. Bronson will now do his cruising on the water instead of in the forest. He has responded to the call for action and has left the Forest Service to enter the Navy.

George B. Sudworth has left town on a ten-days' trip to Texas to look into the boll weevil situation, accompanying C. L. Marlatt, Chairman of the Federal Horticultural Board. Mr. Sudworth is also a member of the Board.

Rolf Thelen has returned from a ten-days' field trip to Philadelphia and Madison with Captain D. Thomson of the British War Mission, studying new types of airplanes and seaplanes.

Prof. G. B. MacDonald has returned to Ames for the opening of the College term, after having put in his summer to good use in walnut production work under the direction of the Office of Industrial Investigations.

District 3

A sale covering five million feet of timber on the Priest Lake Unit on the Coconino Forest has been awarded to the Flagstaff Lumber Company. The stumpage rate is $2 per M foot.

Work on the survey of the Cimmaron-Taos Road has been begun by the Office of Public Roads. Surveys of the Datil-Reserve Road and of the Highrolls-Weed Road will be made later.

A cougar measuring 10 feet 6 inches from tip to tip was killed in Turkey Canyon on the Hucahuca Division of the Coronado by Hunter Parker of the Biological Survey.

A large silvertip bear was recently killed by Ranger Warnoch of the Gila. The bear had been preying on stock in Whitewater Canyon on the Mogollon District for a long time.

M. W. Talbot, who recently resigned from the Forest Service, sends word of his success and is now to be addressed Lieutenant M. W. Talbot, 1st Prov. Battery, 5th Brigade, F. A. R. D., Camp Jackson, S. C., which would indicate that he landed something if the length of this address has any significance.

Hugh M. Bryan, Grazing Examiner, has resigned to enter the Officers' Training Camp at Camp Zachary Taylor, Kentucky.

Steps have been taken to impress upon permittees the necessity of removing from the ranges all short-season stock not removed last spring. This is necessary because some of the Forest ranges have been weakened by a two-years' drouth and the feed is insufficient to carry the stock through the coming winter.

The highway between Flagstaff and Williams has been completed by the State Highway crew, according to the Tusayan News Letter. A top layer of cinders is now being put on the road from Davenport to Williams.

Springerville is under quarantine on account of several cases of smallpox and none of the inhabitants can leave without obtaining permission from the health officer. Forest Examiner Rex King managed to make his get-away after having been vaccinated.

District 6

A. J. Jaenicke, in charge of insect control work for this District, is in California on a cooperative insect-control project in yellow pine between the Forest Service and the Bureau of Entomology.

Hitting high spots seems to be the diversion in the District. Recently Dee Wright got to the top of Mount Adams on horseback. Proof of this accomplishment is offered by the statement that a party of Mazamas, making the climb, met Ranger Wright near the top.

Forest Examiner W. B. Osborne, Jr., while spending some time on fire studies at Anvil Rock, climbed to the summit of Mount Rainier. No indication was received as to his witnesses to this feat.

Unicorn Peak, on the Tatoosh Range south of Mount Rainier, was climbed by a party of ten mountaineers led by Logging Engineer L. A. Nelson. The special features of the trip were an abundance of huckleberries and mountain salal berries found on route, and viewing by starlight the reflection of Mt. Rainier in Reflection Lake.

Misses Minet Sherman and Gladys Palmer recently made a thirty-two mile hike from Cannon Beach, Oregon, to Neah-kah-nie and return, going over the outside trail and returning by the inside way. The ladies report that they found an abundance of ocean and mountain scenery on their two-days' trip.

Indian Mountain Lookout, on the Oregon, was recently visited by a motion picture photographer for the Pathe Weekly News, who took pictures showing the lookout house and the lookout woman.

An unextinguished camp fire on the Wenatchee Forest cost Casimiro Madarian, a sheep camp trader, a fine of $10 plus costs.

Twenty-five members of the District Office, with District Forester Cecil as boss carpenter, recently made a trip to Eagle Creek Camp and Picnic Grounds where the day was spent in putting finishing touches to the station building. Floors were laid, siding put on, and other work done to put the building in condition for immediate occupancy. Lunch and dinner were served on the picnic grounds by the ladies of the party.

Housing problems exist in Portland at present and Forest officers are having a hard time to find suitable places. All of the older buildings are occupied and in spite of high building costs construction of new buildings is taking place all over town. It is not over two years ago that it was stated that there were over 10,000 vacant houses in town looking for tenants.

T. T. Munger has just returned from a timber-sale inspection trip on the Ochoco, Deschutes, Fremont, Crater, Siskiyou, Umpqua, and Santiam Forests. The trip was made by automobile and nearly one thousand miles were covered.

Ranger Cline, of the Columbia, is collecting tree seeds for use at the Wind River Nursery, taking advantage of this season's exceptionally good seed crop. It is hoped to get the following amounts:

Douglas fir	25 lbs.
White pine	20 "
Silver fir	85 "
Noble fir	165 "

The French Forest Office has called on the District Forester for quotations on Douglas fir seed in thousand-pound lots for use in reforestation work in France, where Douglas fir has already been introduced with promising results. A definite order for 200 pounds of Douglas fir seed has been received. A request has also been received from the Bergen Experiment Station, Norway, for small quantities of Douglas fir, noble fir, lowland white fir, silver fir, western red cedar, white fir, and western larch seed for experimental use in Norway.

The Secretary has approved the cooperative agreements in the Lake Quinault and Wheeler County section of the Ochoco Canyon Road projects. Senior Highway Engineer James Schuyler, of Portland, has gone to Prineville to take charge of the location survey on the Wheeler County section of the Ochoco Canyon Road. The Crook County section of this road is already under construction, by day labor. As soon as this section is completed it is planned to shift the construction crew to the Wheeler County section, and construct first a difficult one and one-third mile which constitutes a cut-off and runs past Beaver Ranger Station, on the Ochoco Forest. Day-labor construction is also going forward on the Flora-Enterprise "10%" project on the Wallowa and the Cooks-Collins Forest Road on the Columbia. There are plenty of farmers available with their teams for work on these projects. The difficulty is to secure men without teams. Advertisements are running for bids to construct two and one-half miles on the Lake Quinault Forest Road, on the Olympic.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

September 30, 1918.

Game Resources of the Country

John B. Burnham, President of the American Game Protective Association, has sent an open letter to game commissions of the various States advocating an intensive study of the game resources of each State, with particular reference to the ratio between the annual kill and the game remaining in the covers.

What do the National Forests offer in the way of game fields and game culture areas? What is the acreage of that portion of the Forest areas which can be devoted to game production, and what amount will they produce? It seems to me the Forest Service should be in a position to assist the State game authorities in gaining the information which Mr. Burnham has asked for. Isn't this information that should be on record for all National Forests so that game culture can be properly weighed in future Forest administration? Range reconnaissance is being extended by special parties and by the studies of Rangers having time to devote to this work. Every year the Supervisor and Rangers cover the ranges to observe the capacity, utilization, etc. If these range observations are complete, shouldn't there be an accumulative record relating to game as well as to domestic stock, which will show the capacity of the Forest for game, areas needing stocking, and returns to be expected?

Appropriation Bill Finally Passes

The Agricultural Appropriation Bill has finally passed both Houses of Congress. The bill as passed is similar to the one vetoed by the President except for the clause fixing the price of wheat which was objected to by the President, and which is eliminated from the present bill.

There are no special sections in this year's bill affecting the Forest Service. The main thing is that money is now available to carry on the work.

Forest Service Roll of Honor

A Roll of Honor in memory of Forest Service employees who have lost their lives in the war is to be erected in the Atlantic Building. The Districts have been called on to keep the Forester informed of any deaths that may occur among men from the respective Districts, in order to have the record complete.

It is planned to use the present design which was made by Charles L. Taylor, of the Office of Drafting, as the basis for the more permanent Roll of Honor upon the close of the war.

Bobbin Stock and Fuel from the White Mountains

Mr. Reed has returned from his sojourn in the White Mountains, and reports things from that region as being in a generally pleasing condition, with the exception that labor in the woods is as scarce as squirrels' feathers.

The demand for stumpage of all species and classes is strong and f.o.b. prices are steadily rising in an effort to induce the independent laboring man to condescend to chop wood.

One of the special uses to which the hardwoods in the White Mountains, hard maple, yellow birch and beech, are put is the manufacture of bobbins and spindles for the cotton mills. The war has made increased demands on the mills for the production of cloth, and the mills in turn must have more bobbins, and the White Mountain Forest must in its turn produce more stumpage out of which to make them. In addition, therefore, to the spruce and popple pulpwood, and the spruce for airplane stock which the White Mountain Forest is furnishing, it is also being called on to supply as much bobbin stock to help win the war as can be cut with the labor available. The stumpage price is of far less moment these days to the bobbin manufacturer than is the question of whether he can get men to move the logs to the mill.

Last winter the White Mountain Forest furnished the town of Bartlett with practically all of its fuel, which made it possible to get along with hardly any coal for heating purposes. During the coming winter it is expected that the town will do likewise and that two or three other towns will follow its example. The fuel is cut from hardwood stands along the edges of the Forest within a two or three mile haul of the towns. Only the overmature, defective, or crooked trees are removed, so that the Forest is improved silviculturally in addition to helping solve the fuel question. The Forest Service sells its fuelwood at $1 per cord, while the private, nearby owner holds out for $2.50 to $3 per cord on the stump. Ranger K. E. Kimball is the Forest Officer to whom the most credit is due for developing this coal-saving, fuelwood industry.

Forestry on Timber Rights Land

Forestry is to be practiced by the Saginaw and Manistee Lumber Company on their timber rights holdings comprising 80,000 acres in the Tusayan Forest according to an agreement just about concluded with the Forest Service. Special legislation of the last Congress has made this agreement possible.

The timber involved is on lands originally ceded to the Atlantic and Pacific Railway in 1866 as a land grant, and comprised the odd-numbered sections on a wide strip. Subsequently the lands passed into private ownership. The rights to cut the mature timber originally reserved by the railroad were finally bought by the Saginaw and Manistee Timber Company.

The private interests which had acquired these lands reconveyed them to the United States in 1902 under the lieu selection law then in force. The lumber rights involved were reserved until 1926.

By the first plan of operations the Company logged the alternate sections only. This proved too expensive and later the Company purchased the intervening national forest timber as their operations extended. It was soon found, however, that it would be impossible to cut the timber on the timber rights before 1926, the date of expiration unless the cutting operations were confined to the timber rights sections. The act of Congress granted an extension of the timber rights until 1950 and will make it possible for the Company to extend its logging operations in the most economical manner. Incidentally the Forest Service will be able to market its timber, which would otherwise be left inaccessible by the removal of the railway upon the completion of cutting operations on the timber right sections.

The Company will relinquish its rights on each section within ten years after it is cut over and by 1950 the Government will again be in full possession of the timber lands free from all cutting rights.

The agreement provides that the Company leave four seed trees per acre, or 2,560 merchantable trees per square mile, or a total volume of ten per cent of the estimated stand of timber. The slash and debris from logging will be cleared away from these trees to a distance of 30 feet and fire lines 200 feet wide will surround each section and border each railway spur. The Company also agrees to protect the land against fire during the operations.

Timber Sales on New Basis in New Brunswick

Timber on New Brunswick crown lands is to be sold on a stumpage basis instead of under the lease system, according to Consul E. Verne Richardson. This is of particular interest, for it appears to be a step toward the adoption of the system in use by the Forest Service.

The lands which are to be sold embrace about four hundred square miles. An early trial of this new procedure will be had at the first sales to be made early in October. The timber will be put on sale at an upset price and will require a deposit of ten per cent of the stumpage bid on the estimated quantity of merchantable timber standing on the berth bid on.

Forest Service Ships

The Forest Service has gone into partnership with Messrs. Schwab and Hurley to supply ships to lick the Kaiser. The output by the Forest Service does not equal ship for ship that by the Shipping Board, but is at the ratio of one Forest Service ship to four by the Shipping Board.

This accomplishment has been made possible by successful work of the experts at the Madison Laboratory. It is estimated that the capacity of the ships used in overseas traffic has been increased 25 per cent as a result of the elimination of waste due to bad packing. With the aid of the Laboratory, packages have been standardized and a style of package evolved which utilizes the thinnest lumber possible without danger of breakage; also close-fitting packages are provided to go into cases and other containers.

The Forest Service is making various studies along these lines and is also interested in standardizing and improving containers for shipments in this country. The results are based on extensive studies of the transportation of freight by trucks and freight cars and handling in warehouses.

Fourth Liberty Loan Campaign

Employees of the Department of Agriculture fired the opening gun of the Fourth Liberty Loan campaign by a big open-air meeting at the Department building last Saturday.

Hon. P. P. Campbell, of Kansas, made an address to the assembled employees. The Forest Service was represented to the number of 130. They marched over in a body and made a big addition to the crowd.

For the convenience of Forest Service people a special subscription office is again operating in the Atlantic Building. An effort will be made to publish in the Bulletin the total Forest Service subscriptions, as soon as the information is supplied by the Districts after the close of the drive.

Staggered Office Hours in Washington

Spanish influenza has made its presence known in Washington to such a degree that the office hours for the various Government establishments have been staggered.

Beginning October 3, the office hours of the Forest Service will be from 8.30 a. m. to 4.00 p. m. We are undecided whether to be sorry we did not get the 9.30 hour along with the Treasury Department or to rejoice at being spared the necessity of arising before dawn with the Bureau of Engraving employees in order to get to work at 8.00 a. m.

Fire Prevention Day Postponed

The annual observance of Fire Prevention Day has been postponed from October 9 to November 2, at the request of Secretary McAdoo, in order that there will be no interference with the Fourth Liberty Loan campaign.

Many of the Forest officers have taken advantage of these annual celebrations throughout the National Forest regions to bring out the necessity for fir prevention and protection of the natural resources. Participation in such local celebrations is felt to be very desirable and very effective.

New Publications

"Use But Do Not Abuse Farm Woodlands" is the title of a four-page circular just issued by the Forest Service, which contains admonitions to owners of farm woodlands. The ever-increasing drain on woodlands on account of the war makes it advisable that advice of this kind be given publicity. The Fuel Administrati was furnished, at its request, with a large supply for distribution, and then c back for more.

Washington Notes

Forest Inspector A. O. Waha has returned to Washington after a strenuous and satisfactory field trip to Districts 1 and 6. Mr. Waha was fortunate in timing his trip to District 1 so as to get into the thick of the fire fighting.

T. Hoyt Weber is back in town from a ten days' trip to North and South Carolina on which he visited a large number of mills in connection with the lumber production studies.

W. D. Sterrett is on a ten-days' trip looking over some locust in southern Pennsylvania for the Emergency Fleet Corporation for use as treenails.

Opening Guns of the Wood Fuel Campaign

Coincident with the chilly weather in Washington the Forest Service has launched this year's wood fuel campaign without awaiting some possible action the Fuel Administration might take.

The opening gun consists in Wood Fuel Item No. 13, a continuation of the series started last year, and is made available for general distribution, particularly to the various local fuel administrations and other agencies that might work on these lines.

Item 13 contains as an opening charge the admonition for immediate cutting and laying in of a wood supply as a measure of safety against a probable coal shortage.

To bring this point home it is stated that an additional 80,000,000 tons will be needed and that there seems to be absolutely no chance of meeting this fuel deficiency by coal. It is therefore necessary that a special effort be made to use wood wherever possible in order that coal may be saved for communities and industries that are absolutely dependent on coal.

District 1

F. A. Silcox has been succeeded by W. H. Winans as Director of the Personnel Division of the U. S. Employment Service. Mr. Silcox will continue as a special representative of the Director General in field service.

The problem of delayed germination of western white pine seed has been the subject of over 300 tests at the Priest River Experiment Station. The delay seems to be caused by the hard covering enclosing the seed. Satisfactory results at hastened germination were obtained by four methods: first, soaking the seed in concentrated sulphuric acid for three-quarters of an hour; second, mechanical abrasion of the seed coat if performed without cracking the seed; third, soaking in cold water for 24 hours and exposing to freezing in winter for 40 days; fourth, sowing the seed three weeks after it is collected in the fall, meanwhile stirring it in moist tree bark sawdust daily.

Seed not specially treated in any way has been found to lay over in the nursery for two years, which naturally increases very considerably the cost of raising seedlings.

District 2

Kind Words from the Denver Times

The following editorial appeared in the Denver Times of September 21:

✓

"A call has been sent out for eighteen more battalions of forestry men. They are needed behind the fighting lines to help in the work of getting out railroad ties, lumber for buildings and timber for bridges, besides a host of other employments.

"Until war made its demands people realized only in a general way how this nation has developed in forestry. Less than two decades ago we were told that we knew nothing of scientific forestry - and now we are sending over regiments of skilled men, from chemists to lumberjacks, relieving France of the responsibility of getting out the timber without which the war cannot be won.

"Forestry enters into war even more than into peace. Timber is needed everywhere. Trenches must be strengthened, huts must be built, barracks, hangars, and hospitals constructed, railroads flung across smoking battlefields - and the [illegible] forester must be ready always. America was not found wanting when the call came [illegible] for foresters. In fact, she dominated the situation in a few months, and the work of her foresters excited the admiration of her allies, just as the work of the [illegible] American engineers has astounded the world.

"The big forests of the West contributed many of the men who did the pioneer forestry work behind the lines in France, and no doubt much of the new call will be recruited from the same sources. The boys from the tall uncut have had a big part in swelling the chorus to 'America's Answer'."

H. R. Kylie has returned from the Arapaho Forest where a crew is reconstructing the Granby-Rand telephone line. Owing to scarcity of local labor the crew was recruited in Denver. The line is 37 miles long and the reconstruction consisted in stubbing the poles with native cedar stubs. Poles were set 20 to the mile, as against the usual 30 to the mile. According to Mr. Kylie this makes a very satisfactory line for Forest Service work and is less expensive to construct and maintain. May be so!

A sale for 4,296,000 feet of sawlogs and 53,000 railroad ties has been made on the Black Hills Forest to the Homestake Mining Company. The timber is located in the Boxelder Creek drainage and was sold for $3.30 per M ft. for sawlogs and 15½ cents per tie for Grades 2, 3, 4, and 5, and 20 cents each for Grade 1.

The extreme danger from fires on the Michigan Forest started by locomotives of the Duluth, South Shore, and Atlantic Railroad, which has prevailed during all the dry weather of the present fire season, has been overcome through the cooperation of the Railroad Company. The Company has just recently completed the plowing of two furrows upon each side of its right-of-way from Wellsburg to Kanes Siding, except where Government fire lines were previously constructed. This is the first year that any trouble has been encountered as a result of fires started by the locomotives. The railroad people have claimed that the inferior class of coal or slack furnished the railroad has been the cause of the fires. It is estimated that more than one hundred fires were started along the right-of-way this season. It is believed that the lines plowed by the company will stop the ordinary grass fire along the right-of-way, as the railroad has always kept the right-of-way in excellent condition and has also burned off the grass each spring. This was done this year, but the long period of dry weather killed the grass in the summer and conditions became as bad as before burning. An effort will be made to have the fire lines plowed regularly by the railroad company as its contribution toward effective fire protection.

District 4

Messengerettes will be employed in the District Office to fill the vacancies caused by the recent resignation of the men employed. As a first step in that direction one of the prospective messengers is undergoing the "breaking in" process.

Twelve members of the District Office were used by the Draft Board at Ogden on Registration Day and aided in registering about 4,000 men. The services of the entire personnel had been tendered. Additional assistance has since been given on several occasions.

R. D. Garver has returned to Logan to resume his duties as Deputy Forest Supervisor, having completed the entry survey work upon which he was engaged under the direction of the Office of Lands.

Captain Homer S. Youngs, formerly a member of the District Office, writes that he is again in the hospital as a result of having been buried in a dugout by the explosion of a German "105." The incident occurred on the first day of the American offensive at Chateau Thierry. Captain Youngs suffered only bruises and burns--his two companions were killed--and expects to be in the trenches soon again.

The Great Basin Power Company has made an application for a waterpower project on the Uinta Forest on the North and West Forks of the Duchesne River. The lack of power in the Salt Lake Valley seems to be ample justification for the beginning of construction work in spite of the war, according to the manager.

The grazing of 300 head of swine on the Fishlake Forest from September 15 to November 30 has been authorized on account of the unusually heavy acorn crop. The demand for these grazing privileges is keen and the settlers have agreed to place herders with the swine.

The library in the District Office is being given a complete overhauling by Miss E. Maude Stone, who has just been installed as District Librarian. Miss Stone spent two years in the library at Madison Laboratory and will bring to play the experience gained there in rearranging the District Library according to the standard departmental scheme. It is also planned to prepare a much needed catalogue.

What at first promised to become the biggest land exchange proposition District 4 ever had now bids fair to resolve itself into the biggest timber sale the District has ever handled. The Boise-Payette Lumber Company, after tentatively offering to exchange 23,000 acres of heavily timbered land upon the Crooked River watershed of the Boise Forest for National Forest stumpage adjoining its present operations, is now making an examination of the Crooked River and North Fork of the Boise River chance to determine the practicability of a large-scale operation involving its own privately owned lands and all National Forest stumpage tributary to the area. Assistant District Forester Morse, Supervisor Grandjean, and Deputy Supervisor Watts are cooperating with representatives of the Company.

District 6

A forestry exhibit was installed at the Walla Walla Fair, September 10 to 14, by Supervisor McDaniels and Rangers Bottcher and Davis, of the Chelan, assisted by Mr. Jackson, of the District Office. The exhibit consisted of a ranger's camp showing a properly constructed fireplace and pit for disposal of refuse. Water was brought in from outside and made an attractive feature of the exhibit, dripping from a wooden spout into a pool lined with small rocks. A ranger's mess outfit and other equipment were also exhibited in connection with the camp site. Forest fire warnings and trail signs were posted. In an adjoining booth the instruments and equipment used in fire protective work were displayed, with a series of bromides illustrating forest fires and fire work for a background. An illustrated address on the Forest Ranger's work was given at one of the evening sessions of the Fair.

District 7

Verne Rhoades, formerly Supervisor of the Pisgah Forest, writes enthusiastically and interestingly of his work at the officers' field artillery training camp at Camp Taylor, Kentucky. It appears that singing has become part of the training to increase the stentorian abilities of the future officers. Oh, how we would like to hear Mr. Rhoades sing!

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

October 7, 1918.

Black Locust Treenails

Approximately 3,160,000 black locust treenails are estimated to be available in the region from Hyndman to Rockford, Pa., and from Cumberland to Frostburg, Md., according to Forest Examiner W. D. Sterrett, who has just completed a six-day field trip.

The investigation was made for the Shipping Board. Most of the travel was by automobile. In making this estimate Sterrett visited tracts which had been listed as containing one-half a car or more of black locust. The tracts were examined and a check-estimate made as to the total stand. In addition data were collected covering the total amount accessible to given shipping points.

Seventy-five per cent of the locust was found to be woods locust of good quality, which will average three 8-foot cuts per tree. The remainder is field and fence locust with one or two cuts per tree. Considerable locust was found that was from 15 to 20 inches in diameter and 70 feet in height, with a merchantable length of from 30 to 40 feet.

About twenty cars have been shipped from this region to Madison, Indiana. The locust is purchased f.o.b. cars in 7-foot, 8-foot, and 10-foot lengths with a top diameter from 5 inches upwards. Payment is made by the piece. A box carload is estimated to contain on the average 300 pieces 8 feet long and 7 inches in diameter at the small end. This measures up to about 10 cords per car, and at the rate of $.50 per stick makes about $15 per cord. Deductions in scaling are made for unsoundness only. Knots and crooks are not considered.

The advantage of these lengths instead of 4-foot cordwood sticks is that the seller has an easier job in getting out the material and the purchaser can use for fence posts any sticks not suited for treenails. The price obtained for fence posts pays for the cost of handling.

On the basis of the examination, indications are that approximately 632 cars, totaling 6,320 cords, are available. About 500 treenails are obtained from the average cord. The present annual consumption is about ten million treenails.

Colonel Graves Leaves for the West

Colonel Graves has left for Ogden, Utah, where he will meet the District Foresters of the Western Districts. The meeting has been called for a general discussion of Service matters as affected by the present war situation and particularly by the new draft. It is planned to get together on the various problems and work them out in such a manner that there will be complete understanding and uniformity of action all around.

Colonel Graves will also look further into the elk situation in the Jackson Hole country before he returns to Washington.

Southern Foresters Will Meet

A meeting of the Southern Foresters has been called for January 3 and 4 at Jacksonville, Fla. Profiting by the successful meeting held at New Orleans last year, they will have no set papers, and the time will be given over to informal discussion.

J. G. Peters, of the Washington Office, will in all probability attend the sessions. R. D. Forbes, Superintendent of Forestry for Louisiana, is taking care of the arrangements.

Tinkering with the Clock

Another tinkering with the clock is to take place on October 27. The advantage on this occasion will be that the chance comes to us to recover the hour lost last spring. Many suggestions are going the rounds as to the best method of making the change, the usual one being "Don't turn back the hands; just stop them." We view with apprehension the idea of the isolated ranger stopping his timepiece and going to bed. It would be a long hibernation.

Lumber in France

Timber and Lumber form a very important item in the extensive engineering construction work going on in France. The foresters are called on to furnish nearly 500,000,000 board feet of timber, of which 300,000,000 is sawed lumber.

This lumber is required for docks, barracks, trench timbering, railway construction, barges, warehouses, hospitals, railway cars, and telegraph and telephone poles. Cordwood is needed in addition. More than seventy sawmills are in operation now; the demand is for two hundred more.

Forest Service Uniforms

Instructions regarding Forest Service uniforms, based on the Secretary's regulation, have not yet been promulgated. In response to many inquiries from the field, the following was sent out by Mr. Potter:

"I see no objection, however, if in the meantime you desire to inform Forest Supervisors, Rangers, and other permanent field employees that it is intended ultimately to have uniforms worn by permanent members of the Service stationed in small towns and at administrative sites, so that they may purchase uniforms of the specifications which have been sent you. Unless this is done some of them who now need working suits may purchase civilian outfits, or even uniforms which are not of the prescribed specifications."

Barbed Wire for the Hun

Peaceful American cattle will have to get along without barbed wire. The Forest Service has just been informed by the War Industries Board that all available barbed wire is to go over seas, and that accordingly, the American Steel and Wire Company will not supply any more for range improvements.

It is realized that the construction of drift and other fences would assist in some cases to a fuller utilization of the range resources, but it is felt that this use must give way to the more essential use of taming the Hun.

A limited amount of telephone wire will be made available; its use will, however, be greatly restricted.

Forest Ranger Examination

The annual event, the examination for Forest Ranger, will occur on October 28, 1918, at various Forest Service headquarters. The rating will be based on the following subjects with the indicated weights: (1) Practical Questions, 40; (2) Education, 30; (3) Experience, 30. Applicants are informed that in listing occupations they should not include any work performed prior to the age of sixteen. The extent of education should be given in every detail. To facilitate the distribution of application blanks each Supervisor will receive a supply.

Food Conservation in Lumber Camps

Food conservation affecting more than 100,000 men has been organized in Oregon, Washington, and Idaho, through the Federal Food Administration, cooperating with General Disque. Through the Loyal Legion of Loggers and Lumbermen, the food-saving campaign is linked up with a patriotic drive to bring home to the men a sense of their responsibility for the successful conduct of the war.

Plans adopted for the food-saving drive by the committee call for establishment of a monthly ration per man of several essential foods, to exceed which will be deemed a wasteful practice, education of cooks by traveling cooking demonstrations and lectures at the camps, and special Food Administration membership certificates and buttons for cooks.

Hunters and Forest Fires

The open season for game of various kinds is upon us in the West. In some regions it has been found that the number of forest fires due to human agencies increases very materially during the open season, and as a result Forest officers have found themselves confronted with a rather serious situation.

As a general thing this class of fires is due to thoughtlessness rather than maliciousness. Taking this as his clue, one Supervisor has each year just before the game season prepared a circular letter of which he sends a copy to every holder of a license. The names are obtained from the County records. The letter reads as follows:

"The records of the Treasurer of ________ County show that a big game license for 1918 has been issued to you.

Hunting this year should be as good as it has been for many a year, for the Forest officers throughout the region report the presence of considerable game. May your anticipations be completely realized.

During the past summer there has been a larger number of tourists in the mountains than ever before. They were persuaded to come by having heard of the many attractions afforded by the timbered hills, well-stocked streams and excellent mountain roads. We hope to have many return in the near future, coming not alone but bringing their friends and neighbors along with them.

To bring this about it becomes necessary to protect against destruction the attractive features. Forest fires, destroying the timber and thus lessening the available water supply, are the greatest menace. The number of Forest officers available to detect and fight fires is limited. Therefore, I am going to ask for your cooperation to assist us in limiting the danger from fires. Help us to educate the other fellow how to handle and use fire when in the forest, and if you see anyone inclined to be careless explain to him what his carelessness may mean to the entire country."

Municipal Elk Protection

Successful elk protection has been worked out by the town of Steamboat Springs, Colo. In the spring of 1914 a small bunch of elk came down out of the hills in the vicinity of the town and did considerable damage to haystacks. Protests were made to the Forest Service and the Game Department for help. Then the Town Board agreed to provide an enclosure and take care of the elk. The Steamboat Land Company donated the use of 35 acres of rough brushland located near town.

The State Game Commissioner granted the license to capture ten head, which was done by the Forest officers and several volunteers among the citizens.

The enclosure cost $568, and consists of 10-foot cedar posts set 18 feet apart upon which was placed 30-inch woven wire topped off by seven strands of barbed wire.

The animals are fed by the town marshal as a part of his regular duties. The cost of enclosure and feeding has amounted to $1,088.51 up to the fall of 1917.

In 1915 a cow and calf escaped. In 1916 three head were donated to Garden City and there occurred one fatality in the enclosure. After various other additions and vicissitudes there were 22 head in the fall of 1917.

License to kill seven head was obtained last year and the butchered elk averaged $60 per head. The hides and heads will raise this to $70.

The total number available for sale would have been not less than 16 head, but as the State demands 10 per cent of the increase the town of Steamboat Springs did not get the full financial benefit. The experience shows, however, that elk can be taken care of under certain conditions without any financial loss.

Reward in Fire Trespass Cases

Specific legal authority for the Forest Service to pay rewards for information leading to the arrest and conviction of persons setting forest fires will be asked for in the Estimates for Appropriation for the fiscal year 1920. This action becomes necessary in view of the recent modification of Regulation T-2.

In the absence of specific authorization to the Department of Agriculture to offer rewards and because specific authority has been granted to the Department of Justice by Congress, the rewards offered can be paid only by the Department of Justice or by special appropriation by Congress.

The old cloth notices of reward now posted are being gradually removed by the field men. A new supply of reward notices on metal in two colors will be obtainable from the Supply Depot as soon as the necessary action is taken by Congress.

Fire Protection in West Virginia

Cooperative forest fire protection in West Virginia is provided by a combination of forces. The Federal Government cooperates under the provisions of the Weeks Law and on its own responsibility takes care of the Monongahela Purchase Area. The State does some protection on its own hook, and two cooperative associations assist.

C. W. Brandon, State Forest, Game, and Fish Warden, has called meetings at Elkins and Charleston to discuss the situation. Mr. Peters, who on behalf of the Forest Service sees to it that the States do their part under the Weeks Law agreements, plans to attend the sessions.

Lands Added to the Oregon Forest

The acreage of the Oregon National Forest has been increased by the addition of lands covering the Bull Run Watershed from which the city of Portland obtains its water supply. The lands form a part of the original grant to the Oregon and California Railroad Company, but which were revested in the United States pursuant to the decision of the Supreme Court.

War Brevities

Lieutenant-Colonel Coert DuBois, Captains D. T. Mason and W. N. Millar, and Lieutenant E. C. Sanford have returned to this country for special duty in the organization of special units. It is reported that Colonel DuBois succeeds Colonel Bowlby in the organization of the additional battalions for the Twentieth Engineers. Captains Mason and Millar and Lieutenant Sanford are at present at Camp Humphreys and are to get together a regiment of sappers.

Fire patrol of the forests in British Columbia by hydroplane is being tested, according to newspaper accounts. The Minnesota Forest Service has been interested in hydroplanes for this purpose as far back as 1914. Conditions seem favorable in Minnesota with its 15 million acres of forest, dotted with countless lakes that would serve as convenient and safe landing places. After the war there may be available necessary equipment for just this purpose.

Supervisor Hilton, of the Michigan, and Peter Keplinger, of the Holy Cross, have been detailed to the black walnut production work. On the basis of reports coming from the field it seems to be the prevailing opinion that the peak in walnut production will be reached in early spring. To anticipate this it becomes necessary that a special effort be made to stimulate production in the regions where walnut occurs less abundantly and where there are no manufacturers operating at the present time.

Announcement is made of the death in action of Ross McMillan, formerly Supervisor of the Carson Forest. Sergeant McMillan died at the front some time in July and was buried with full military honors. He was a member of the Flash Ranging Section.

Washington Notes

Inspector of Grazing Nelson has reached town after a four-months' trip to the Western Districts. Mr. Nelson reports that he had a good field trip and we hope in an early number of the Bulletin to let our readers in on some of the things he saw.

The spirits of the business managers of the Weekly Bulletin have been revived in good shape during the past few weeks through the receipt of numerous letters acknowledging the arrival of the Bulletin and indicating that the writers found it pleasant reading. These kind words have effaced all traces of the pangs created by the letter from the Presidio of which mention was made a short time ago.

Contributions to the collection of old Forest Service publications were made as follows:

California National Forest	19 publications
Missoula " "	12 "
Leadville " "	45 "

District 1

No more western and white pine will be used for manufacture of airplane stock a fter October 1, according to an announcement made by Kenneth Ross, a representative of the Aircraft Board, in the Daily Missoulian.

J. F. Forsythe, Supervisor of the Kaniksu, has been inducted into the Tank Division and reports for duty at Fort Lawton.

George Schottenberg, formerly of the Missoula Forest, has been transferred from the Twentieth Engineers to a Tank Regiment, according to word received.

Logged-off lands within and adjacent to the National Forests of the District are being examined by C. B. Swim in cooperation with the U. S. Reclamation Service.

The following, taken from the Weekly Bulletin of District 1, is reproduced in the hope that it will persuade all readers of the Weekly Bulletin to participate actively as contributors. Come across! We can use contributions from all of our readers!

"LEND A HAND

Do you like to hear about changes that take place in the Service? Do you like to know what the other members of our official family are doing? If you do, then why not send in some news about yourself, or about some of the events that happen in your vicinity? The Bulletin is for the stimulation of interest in Service affairs. Do you realize that our men who have gone into military service are interested in news from the District? The Bulletin can be made of interest to all if we choose to make it so. It cannot be done, however, by indifference or by letting the other fellow shoulder all the work. A penciled memorandum marked 'For the Bulletin' is sufficient. It isn't necessary that your contribution be typewritten. Have you ever made a contribution to the Bulletin? Have you anything ready for the next issue? If not, why not? Send something of Service interest for the Weekly issued by the Washington office."

The Potlatch Lumber Company in Idaho has installed a cafeteria system of feeding lumberjacks, by which the lumberjack pays for what he eats. This is going some! What next?

The Palouse Division of the St. Joe Forest was recently subjected to a grazing inspection and several interesting facts were gathered at the time. According to an old resident of the region, a considerable portion of the division was burned over in the year 1896 and also previously. A heavy stand of fireweed invaded this area at once. Adjacent stockmen took advantage of the fireweed stage and began grazing sheep on the succulent fireweed forage during the summer season. Supervisor Haines states that the area furnished range for 26,000 sheep as late as 1909. The fireweed stage gradually gave way to brush and a dense stand of coniferous reproduction. The quality of the range gradually deteriorated because of the crowding out of the palatable forage by the unpalatable reproduction until the number of sheep using the range has been reduced more than 50 per cent.

From present indications it seems probable that the reproduction which consists of fir, larch, cedar, and a high proportion of white pine ranging from 5 to 20 feet in height will be so dense in two or three more years that there will be very little grazing on the division for sheep.

On Cedar Creek an old sheep bedground was found which was covered with a thrifty growth of white pine and other coniferous species averaging more than 10 feet in height had grown over the bedground. The grazing has apparently done very little, if any, damage to the young trees, but the dual production of young timber and forage by the same area has been on a rather intensive scale.

District 2

Production of railroad ties in the Medicine Bow Forest and the northern part of the Colorado Forest is going on with considerable activity. From 125 to 150 men are now engaged in hewing ties. In addition, ties are being produced on patented land in this region. Competition for men between the different operators is very keen, and unusually high wages are prevailing. It is rumored that tie makers will be given deferred classification, and employers must claim such deferred classification for the men whom they are interested in keeping. Getting their exemption will probably result in less movement of men between the different operators.

The Fremont Experiment Station was closed on October 1 for an indefinite period, owing to war conditions. Mr. Bates, who has been in charge, will be assigned to the walnut lumber production work in the middle western States.

Women workers have entered another field through labor shortage. At Laramie, Wyoming, women are being employed in the sawmill of the Foxpark Timber Company. It is understood that they are proving satisfactory and are receiving $4.00 per day, the same wages that are being paid the men. The box mills at Cass Lake and vicinity on the Minnesota Forest have followed a similar plan for the past few months.

The users of the Pike Forest, under the supervision of Forest officers, are to conduct in October a systematic roundup of cattle on one of the districts of the Forest. This particular range has been used for yearlong grazing, and it has been impossible to get correct information as to the number of stock actually using the range. The roundup is being conducted as a last resort, since it seems impossible to get an accurate check in any other way. This action has been made compulsory with the users under Regulation G-24, and will be made in connection with the usual fall roundup on this district.

A hunter employed by the Biological Survey was recently arrested by a Forest ranger for having deer meat in his possession. Presumably he was using the meat for bait in trapping predatory animals. The hunter was bound over to the district court at the preliminary hearing, but the trial has not yet come up.

Forest Clerk Leslie T. Mahurin of the Holy Cross National Forest has been granted a furlough to attend the Officers' Training School at Camp Pike, Arkansas.

District 3

With deep regret announcement is made of the death of Isidor L. Smolen, Forest Assistant at the Fort Valley Experiment Station. Mr. Smolen entered on his duties in the early part of September and shortly after reporting for duty fell ill with typhoid.

District 4

A uniform method of appraisal, particularly in connection with timber sales involving ties, was the subject under discussion at the recent conference held at Ogden. The conference was participated in by C. G. Smith, of the Washington Office; J. B. Preston, of Missoula; Earl B. Tanner and M. W. Thompson, of Denver, and members of the local office.

G. G. Anderson, of the Washington Office, spent the past week in Ogden.

J. F. Keps was a recent caller at the District Office and carried away with him information regarding the form of contract for locust treenail sales on the Walla Walla Military Reservation, Oreg. An offer of $15 per cord for material has been received. The treenails are to be manufactured in a plant on the Pacific Coast for the shipyards.

Car shortage has seriously interfered with the shipment of lambs from Wood River points, according to the Supervisor of the Sawtooth Forest. In some instances the deliveries are more than a week behind the schedule. As a result of these delays the sheepmen have been forced to buy hay at excessive prices. Some outfits from the Snake River country have found it necessary to trail their entire flocks to their winter ranges, expecting to ship these lambs from there at a later date.

Fifty members of the District Office enrolled as "Volunteers" on the first day of the Fourth Liberty Loan Campaign. The number would no doubt have been larger had not a large number of the members of the Office been in the field on that day.

District 6

Fourteen members of the Portland office have been sworn in as associate members of the legal advisory board for the local draft board, division four. These men are working in groups of four, assisting registrants in making out their draft questionnaires. Work begins at 4.30 and lasts until 9 p. m. daily except Sundays. Sunday hours are from 3 to 9 p. m.

Groceries and supplies to the amount of $1,636 were purchased through the Forest Service Cooperative Buying Association during the past year. At the annual meeting, held September 25, the following officers were elected for the ensuing year: Chairman, Miss Palm; directors, Messrs. Munger and Jackson.

Assistant District Forester Kavanagh and Grazing Examiner Peterson, of the District office, attended a grazing meeting at Bend, Oregon, September 23 and 24. Inspector of Grazing J. T. Jardine, of Washington; Forest Supervisors Jacobson of the Deschutes, and Harpham of the Ochoco, Deputy Supervisor Vincent of the Deschutes, and Grazing Examiners Dutton of the Whitman, Ingram of the Ochoco, and Horton and Kuhns of the Deschutes, were also present. The main purpose of the meeting was to formulate plans which will insure a maximum utilization of National Forest range of the district. The party visited Cabin Lake range, in the Fort Rock section of the Deschutes, where an association of thirty small stockmen is grazing 600 head of stock on range that was formerly not used on account of lack of water. A deep well, equipped with a gasoline engine and pump, now supplies the water for this amount of stock. Salt troughs have been established at various points three miles distant from the well. Plainly marked stock trails between these salt troughs and the well indicate that the stock is grazing over an area with a radius of three miles about the watering place. It is planned to sink other wells in this region, which should make possible the grazing of at least three thousand more cattle on this particular range.

New plans have been worked up for the District Six standard lookout house which aim to remedy several defects in the construction of the building. The truss supporting the tower has been much simplified without decreasing its stability. The construction of the windows has been changed sufficiently to make all parts water-tight in spite of the severe weather conditions at the points where these houses are used.

It cost Lumberman Erickson $1.00 to shake hands with Marie Dressler at the meeting in behalf of the Fourth Liberty Loan held at the Portland auditorium September 24.

Because of delays in construction of the new post office building, due to difficulty in getting labor it is very probable that the District Office will remain in its present quarters during the remainder of this year.

The sale of 18,100 M. feet of western yellow pine and 7,700 M. feet of inferior species, on the Wallowa and Minam National Forests, has been tentatively awarded to the Minam Lumber Company. The timber lies in the Minam River watershed; the yellow pine being in two blocks, for which the bids are $3.20 and $2.00 per M. respectively for yellow pine, and 50 cents per M. on both blocks for the other species. The difference in price for the yellow pine in the two blocks is due to accessibility and ease of logging. The Minam Lumber Company is an established concern, with a sawmill at Minam, Oregon. They have been cutting privately owned timber but are now dependent upon the National Forest for timber to supply their mill. The logs will be driven down the Minam River for about twenty miles.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

October 14, 1918.

Ungeographic Americans

America is the land of the tube and the time-table. We travel so many hours through a void, playing cards or reading a magazine, and get out into a station just like the one we went into at the other end. If we look out of the window on the way and see a mountain or a river we say, "I wonder what that is?" and then promptly forget it. Perhaps America is so big and so full of geography that the mind is appalled at the idea of studying it.

To be sure, we are not all so bad as the young couple from Tacoma. They had motored across the mountains to Lake Chelan by auto highway. In the lobby of the hotel where they were writing letters, the man looked up and asked the girl behind the desk if the mountain range they had crossed was the Rockies. On learning that they had come from Tacoma she replied, trying to keep a straight face, that they had crossed the Cascades; whereupon Mrs. Newlywed remarked to her husband, "You know, dear, the Rockies are in California!"

Nevertheless one of the great American weaknesses is ignorance of geography and with it of the value and right use of our natural resources and the reasons for many things that the Government does in connection with them. So long, for instance, as the average American remains ignorant of the relation of the National Forests to the navigability of the rivers of the country, the supply of water for irrigation, etc., so long will he continue to wonder why the Government can not show a financial profit from the National Forests.

There's a way to cure the national indifference toward the larger aspects of geography. Everyone is interested in the development of his own community. It should be our business to direct this local interest in such a way that it will lead to a better understanding, first of the geography of the locality, then of the whole region, and finally of the connection between national geography and national prosperity.

Woods for Airplane Propellers

Woods for airplane propellers are purchased in order of preference decided on by the Engineering Department of the Bureau of Aircraft Production. This order at present is walnut first, cherry second, Central American mahogany third, quartered white oak fourth, and African mahogany fifth. It has not been possible at all times to place orders for woods in the exact order of preference, and as a result purchases have been made at times of woods of lower rank in preference.

Quartered white oak is apparently taking its place as a good propeller wood. Experiments show it to be admirably suited for this purpose. It has the decided advantage of being obtainable more cheaply than other propeller woods, deliveries are more certain, and it does not use up shipping facilities needed for other purposes. It is hoped that the result of the experiments will be to give quartered white oak a higher rating. If so, it will permit the placing of contracts in this country and save the necessity of importing supplies.

Fire Cooperation with the Railroad Administration

A comprehensive outline for cooperative fire measures between the Forest Service and the Railway Administration will be worked out by the Forest Service.

During the past week a conference was held in Washington with H. G. Rambo, in charge of the Insurance and Fire Protection Division of the U. S. Railway Administration. The Forest Service was represented by Messrs. Peters, Koch, and Waha.

Mr. Rambo made the suggestion that the Forest Service present a comprehensive outline showing specifically in what respects the railroads should cooperate. Upon approval of this by the Railway Administration, the Regional Director of Railroads will receive instructions to put the plans into effect, and as a result a fairly uniform system of effective fire cooperation will be assured.

The conference was arranged by Mr. Peters, who had previously received inquiries from various State Foresters as to the attitude of the Railway Administration. Everything points to a satisfactory arrangement all around.

Trapping on the National Forests

For some time it has been the feeling of the Forest Service that some control over the professional trapper operating on National Forests was very desirable if in any way possible. At the present time there is no regulation whatever on trapping in the National Forests. The supervision and regulation of the operations of professional trappers does not now extend beyond issuance of a permit to use or build a cabin for headquarters. A large number of them operate during the winter when there is usually very limited patrol of the area by Forest officers. Under these conditions violations of the State game laws and other depredations occur for which trappers are apparently responsible.

After careful consideration of the matter, the Solicitor of the Department has given his opinion that to restrict trapping to holders of permits for this form of use is not authorized by the law. It is the long-established practice of the Government of allowing its citizens access to the public lands for all purposes not violative of the law, and especially for hunting, trapping, and fishing. The Administrative Act of June 4, 1897, creating the National Forests, expressly provides, "nor shall anything herein prohibit any person from entering upon any such Forest reservation for all proper and lawful purposes."

Hunting and Fishing Trespasses on the Forests

Under these circumstances Secretary Houston has approved the following regulation which will shortly be incorporated in the Manual:

Hunting and Fishing Trespass

> The going or being upon any land of the United States, or in or on the waters thereof, within a National Forest, with intent to hunt, catch, trap, wilfully disturb or kill any kind of game animal, game or non-game bird, or fish, or to take the eggs of any such bird, in violation of the laws of the State in which such land or waters are situated, is hereby prohibited.

It will be noted that this regulation does not prohibit or restrict in any way hunting and fishing in accordance with the State laws, but has reference entirely to violation of the same.

It is felt that this regulation will assist Forest officers very materially in their efforts to enforce the State laws bearing on game protection. In many localities they have not been able to get the local machinery for game-law inforcement into effective action. The regulation will bring this new class of trespass cases within the jurisdiction of the Federal Government.

Ten Million Seedlings for France

The French Minister of Foreign Affairs, through the State Department, has made a request for Douglas fir and eastern white pine seed to grow 10 million seedlings. Approximately 200 pounds of Douglas fir seed and 500 pounds of eastern white pine seed will be needed.

The Forest Service will be able to supply at least in part the Douglas fir seed and District 6 is busy on this now. The cooperation of State forest organizations is necessary to get the eastern white pine seed and the Forester has issued a call.

The State of Minnesota, through the Cloquet Experiment Station, has offered 200 pounds, and the State of Vermont, through the State Forester, 50 pounds.

The State Forestry Commissioner of Pennsylvania has agreed to furnish the French Government 2,500,000 white pine seedlings. There seems to be no doubt that the full amount will be got together as soon as the other State Forest organizations are heard from.

Interallied Council for Wood Products

Facing the statue of George Washington which stands in the Place des Etats-Unis in Paris is the office of the Interallied Council for Wood Products for war needs. Here are to be found representatives of the French, British, Canadian, and American Governments engaged in getting wood materials for carrying on the war. The joint organization became necessary to secure coordinate and harmonious action in making purchases of private timber, solving problems of transportation, and handling the whole wood situation.

The French armies are supplied with wood products by the Wood Service in the Ministry of Munitions, which has supervision over the war forestry work in all of the country except the Army Zone. Headquarters are in Paris and it is closely correlated with the Forest Service of the Ministry of Agriculture, which has charge of the national forests and general supervision over the communal forests. The Forest Service grants permits for cutting in the public forests, appraising them, marking the timber, and inspecting the operations.

There is also close cooperation with the fuel administration, which has direction of the fuel supplies for the civil population and industrial needs.

Timber Sale Receipts for First Quarter

The timber sale receipts for the first quarter of the fiscal year 1919 show an increase over those for the corresponding period in the fiscal year 1918 of over $18,000. The receipts from the different Districts indicate a startling irregularity as compared with those of the previous year, with only Districts 3 and 7 showing, on analysis, a normal increase. Districts 1 and 4, which show the largest increases in percentage, appear to have been taking in considerable money in advance payments when the value of the timber cut as reported through August, at least, is compared with the receipts through August and through September. District 6, with a satisfactory increase for the quarter, evidently took in heavy advance payments in September, since its receipts for the month were approximately $56,000, or nearly half its total for the quarter. District 2 shows a decrease for the quarter of 11 per cent and District 5 a decrease of 32 per cent. The increase for all Districts amounts to about 4½ per cent, which, in view of the labor shortage and uncertainties of future markets, is very gratifying.

In the order of their timber sale receipts for the first quarter, the Districts stand as follows: 6, 1, 5, 3, 2, 4, and 7. District 7 officials report that when the sap runs next spring they will climb out of the cellar and they may do it before. Meanwhile they look at the "receipts per acre" figure and are comforted.

Annual Meeting of the Society of American Foresters

The American Association for the Advancement of Science will hold its annual meeting at Baltimore December 27 to 30 inclusive, and in conjunction with this meeting the Society of American Foresters will hold a separate meeting December 27 and 28. An attractive program, which will be given in the next issue of the Journal of Forestry, is being arranged.

The annual business meeting of the Society will also be held at the same time, and the annual reports of the various officers will be presented.

Christmas Boxes for the Men in the Forest Regiments

The commanding officer of the Tenth and Twentieth Engineers has been cabled asking, on behalf of the Forest Regiments Relief Fund and the Forest Service, the privilege of supplying Christmas boxes to men in the Forest Regiments otherwise unprovided for.

Under the regulations of the War Department only one Christmas Box may be sent to each man in the American Expeditionary Force. To be forwarded, boxes must have special Christmas-Box labels. These labels will be issued by the War Department to the soldiers, for each one to send to some individual relative or friend. No other packages than packages bearing Christmas-Box labels will be handled for members of the American Expeditionary Force in December.

When announcement of this plan was made, it was felt by members of the Forest Service that a good many men in the Forest Regiments would have no one from whom they could ask Christmas boxes. The matter was taken up with Mr. Ridsdale, who on behalf of the Forest Regiments Relief Fund assured us of the necessary financial backing, and sent the cable. Since boxes must be mailed before November 15, there is no time to lose.

The Forest Service will see to the make-up, packing, and shipping of the boxes. The War Department rules limit the size to 3 x 4 x 9 inches, and the weight to 3 pounds. The boxes must be obtained from the Red Cross, which supplies at the same time instructions regarding the kind of articles that may be included. Until we hear from the other side we shall not know whether the plan is feasible, since carrying it out depends on getting the word to the scores of camps all over France in which the men of the Forest Regiments are working. If it proves that we can be Santa Claus for the men who would otherwise not receive a Christmas remembrance from the United States, we shall be most glad.

It is hoped that this will afford us a means of using the socks, of which several hundred pair are on hand, that have been knitted for the Forest Regiments.

Beans

Seven women and four men from the Washington Office picked twelve bushels of string beans at the Arlington farm last Friday afternoon for the use of the wounded soldiers at Walter Reed Hospital. The party went over to Arlington in an auto bus at 70 miles an hour and returned in a spring wagon at 3 miles. To make up for the lack of speed on the way back, they consumed a dozen hard apples and washed their hands on the cores. If the beans do the eaters half as much good as they did the pickers, there'll be a lot of happy boys at Walter Reed.

Help for the Camps

The epidemic of influenza became so bad last week at the camps near Washington that calls were sent out for volunteer assistance. Mrs. Carmody and Misses Glase, H. Smith, and Murphy, of the Washington Office, went to Camp Humphreys and assisted the nurses there in fighting the disease. They took with them sixteen sweaters knitted by the women of the Office from wool supplied by the Department of Agriculture. These were given to the hospital orderlies, who have to begin their work at 4 A. M. these chilly autumn mornings. Mrs. Mulford went to Camp Meade and took with her 60 pounds of grapes, a gift from the members of the Office, to distribute among the sick soldiers there.

Washington Notes

R. Zon left Washington Sunday night for an extended trip in the West. He goes first to Indianapolis to confer with Baker, Korstian, Bates, and Hilton on the walnut supply work, and from there to Flagstaff.

J. A. Mitchell has just returned from a trip to Michigan and Wisconsin during which he inspected the cooperative fire-protection work in those States. Mitchell had left Wisconsin before the big fires broke out there and so could not give us any information about them.

R. K. Helphenstine, Jr., attended a meeting of the Artificial Limb Manufacturers' Association in the Surgeon-General's Office on October 14 , at which were discussed various questions in connection with the supply of temporary and permanent artificial limbs for wounded soldiers.

The collection of old Forest Service publications has been increased during the past week as follows:

Leadville	National	Forest	48	publications
Chugach	"	"	48	"
Fillmore	"	"	182	"
Sierra	"	"	42	"
Uncompahgre	"	"	60	"

Fire in Minnesota

Word has been received from Assistant District Forester Fred Morrell, of the Denver Office, that two serious fires are burning in the Minnesota Forest and that the press reports of the great fires in the Lake States are conservative.

Madison Laboratory

The value of the instructional work at the Laboratory was recently shown in a striking way in the adoption of a new design cartridge box which effected a saving of $50,000 in the very first contract made. The new specifications were drawn by a lieutenant who had been detailed to the Laboratory for instruction in box construction. Shortly after taking up his duties as inspector for the Ordnance Department he worked out a new design, which was at once accepted, displacing a design that had been in use for a long time.

Five testing machines, ranging in capacity from 10,000 to 100,000 pounds, have been recently added to the equipment of the timber testing laboratory. This equipment was loaned by the various universities for the period of the war, owing to the difficulty of obtaining new machines. The additional machines will greatly facilitate the progress of the work of this section.

Drying tests indicate that the moisture content of Sitka spruce averages 14.2 per cent, of western white pine 13.3 per cent, of white ash 12.1 per cent, and of Douglas fir 11.2 per cent.

District 1

Seventy-eight-pound lambs in Chicago are reported by the St. Joe Forest. Rothrock & Anderson are the lucky permittees to secure such splendid results. These figures are the best submitted so far for the District. The sheep were grazed on the Monumental Butte allotment about 25 miles south of Avery. The forage consists mainly of fireweed, groundsel, pine grass, ceanothus, wheat grass, and a small percentage of lupine. Mountain laurel (Menziesia glabella) is abundant, but the sheep were handled under the one-night camp system and since they had an opportunity to exercise some choice in selecting their feed, no loss occurred from this shrub. No evidence was discovered that conifers had been damaged, and the range was left in good condition.

A stull operation on Gold Creek watershed is still under consideration by the Anaconda Copper Mining Company. J. W. Girard, accompanied by the engineer of the company, is engaged in making a preliminary survey for a flume location. On account of the rough character of the canyon in spots, considerable money will be needed for the construction of the initial improvements. There is a large amount of Government material on the upper portion of the watershed which has, however, no value except for stulls.

H. H. Lansing has resigned from the Office of Engineering and has accepted a position as instructor of topographic surveys in the University of Montana.

District 2

A survey of the range used by the Northern Yellowstone elk herd in the vicinity of Gardiner, Mont., has just been completed by Forest Examiner Hutchinson and Deputy Supervisor Baum of the Beartooth, in connection with the study being made by District Forester Riley of game conditions on areas within and adjacent to the National Forests. The work included the typing of over 100,000 acres of winter elk range and a detailed survey of 67 ranches in the Yellowstone River Valley.

Notwithstanding the fact that Wind River was at least a foot higher than it has ever been in the memory of the older inhabitants, the Wyoming Tie & Timber Company on the Washakie Forest had a very successful drive this season. On account of the labor shortage, however, it was not possible to get out the maximum of 400,000 ties, and only about 250,000 pieces were included in the drive. The rear of the drive is within about 1/4 mile of the loading works and the ties are being yarded at the rate of about 8,000 daily.

When a representative of the Committee of the Fourth Liberty Loan Campaign in Denver called at this office, pledges amounting to $7,200 were signed up, ready to be turned over to him. This amount represents 8 per cent of the annual income of the District Office. Other pledges are expected.

Three more District 2 men have been released for war work; namely, Supervisor Huber C. Hilton of the Michigan, Forest Examiner Peter Keplinger of the Holy Cross, and Forest Examiner Theodore Kreuger of the White River, the latter to enter a training camp.

District 3

The International Association of Game and Fish Commissioners will hold its annual convention at Albuquerque this fall. This association includes the game conservation officials of the United States and Canada. Albuquerque was selected as the next meeting place through the efforts of State Game Warden Reualt and in recognition of the progressive work done by the Southwest in game matters. Game conservation on the National Forests will be one of the subjects to receive consideration.

Running a speeder into an open switch on the Saginaw and Manistee Lumber Company's sale has laid up Scaler Wayne Russell with a broken arm.

The hegira to the Madison Laboratory from this District continued. The latest to go are Deputy Supervisor Ancona, of the Carson Forest, and Ranger Cooperrider, who has been on grazing work.

Three hundred and eighty predatory animals were killed during the month of August in Arizona and New Mexico by 15 Federal and 15 State hunters. Included in this kill were 5 wolves, 9 mountain lions, 4 bears, 302 coyotes, 60 bob-cats, 49 smaller animals--17 foxes, 3 skunks, 14 badgers, and 15 porcupines.

District 4

A preliminary hearing was held recently in the case of Martinez and Archuletto, the Mexicans arrested for the murder of Ranger Mellenthin of the La Sal Forest, in which they were held over for action by the Grand Jury. Later Martinez, who is the father-in-law of Archuletto the deserter, and who is believed by every one to have done the shooting, was brought to Salt Lake City to escape the vengeance of a mob which was believed to be forming. Martinez was so fearful of mob violence that he had the local officer purchase a heavy padlock and chain with which he locked himself in his cell to forestall the possibility of his forcible removal from the jail.

C. C. Brunner, who has been District Fiscal Agent in this District for nearly two years past, has resigned from the Forest Service, and has gone to Portland, Oreg. to take up work with a view to qualifying as a Certified Public Accountant.

Homer A. Seip, who has been in the Office of Accounts in this District for a number of years as Auditor, has been promoted to District Fiscal Agent to succeed Mr. Brunner.

While rather conservative in its recommendations, the Intermountain District endeavored to do its part in meeting the increased demand for meat products last spring by recommending some increases in the numbers of stock allowed to occupy the Forest ranges. Under normal conditions the increased numbers recommended could safely have been carried without injury to National Forest interests. The general shortage of labor, however, has made it necessary for permittees to employ men wholly lacking in experience, and in many instances physically unfit to handle the stock properly on the range. Groups of permittees who in earlier years salted and distributed their stock in ways which met the most exacting requirements of the Service, this year found it impossible to hire men to do the necessary work. To complicate the situation, many Forest officers in charge of important districts were not thoroughly familiar with conditions in their districts, and in some cases were markedly lacking in experience. As a result, it may be necessary in some instances to reduce the numbers of stock grazed to, or even below, the numbers authorized in 1917. The experience of the year has demonstrated that the acceptance and familiarity with the approved methods of range management acquired by the permanent employees of the permittees through the educational efforts of the Forest officers has been a big factor in increasing the carrying capacity of the Forest ranges, and that the loss of such employees through engagement in military service or attraction to other more highly paid lines of employment must inevitably be accompanied by reductions in numbers of stock grazed if damage to Forest lands is to be avoided.

A boy of sixteen temporarily employed as Clerk on the Idaho Forest so thoroughly outclassed his two predecessors in his quick grasp of the requirements of the position and his ability to handle the work that it has been a matter of extreme regret that, due to his age, he can not be permanently employed.

District 6

Mr. Kummel recently inspected the plantations, especially of the years 1912 and 1913, on the Mt. Hebo planting area of the Siuslaw. He found the trees in a thrifty condition, with a height varying from 3 to 6 feet.

Forest Examiner Bruce Hoffman is inspecting the airplane spruce sales on the Olympic and making a field examination of a proposed new sale of airplane spruce near Lake Quinault.

Elijah J. Wigal has made settlement of his share of the damage done by fire which spread from his slashing in the Wind River Valley on the Columbia last fall, by payment of $72.93. The settlement was made voluntarily after the case had been submitted to the Department of Justice.

The sale on the Swamp Creek Unit of the Wallowa, covering 44 million feet of yellow and lodgepole pine and 10 million feet of other species, was awarded to the Oregon Lumber Company, of Enterprise, Oreg. For some time past the company has been operating in adjoining National Forest timber. The pine was sold at $3.30 per M. and other species at $.50 per M.

John W. Miller, Assistant Entomologist in charge of the Ashland Station of the Bureau of Entomology, stopped off at the District office recently while en route to the spruce territory along the lower Columbia in Oregon and Washington to inaugurate an extensive study of reported insect damage to Sitka spruce.

The sawmill town of Lindberg, Wash., was destroyed by a forest fire, which also threatened the town of Morton, but was put under control by the aid of soldiers from Camp Lewis. The fire started on privately owned lands within the Rainier Forest and did little damage to the Government timber.

C. W. Zimmerman, Engineer in Forest Products, accompanied L. C. C. Laursen, Chief Inspector for the Pacific Lumber Inspection Bureau, on a recent inspection trip, during which mills of Coos Bay, Tillamook, Oreg., and Crescent City, Calif., were visited. These mills are all cutting Douglas fir, Port Orford cedar, or Sitka spruce for airplane use. Mr. Zimmerman is endeavoring to standardize the inspection methods at the mills so that they will conform with those used at the airplane factories.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

October 21, 1918.

Our Relations with the Stockmen

A few figures taken from our grazing statistics for the year which ended June 30, 1918, give some very interesting information.

The increase over the 1917 figures in the number of stock grazed during 1918 is 187,822 head of cattle and horses and 876,335 head of sheep and goats. The increase in permits over 1917 for cattle and horses was 1,464, and for sheep and goats 1,011.

The increase in cattle and horse permits for 1917 over 1916 was 3,084, so that in 1918 we have fallen off considerably in the issuance of new permits for this class of stock.

For sheep and goats we issued 76 less permits for 1917 than we did for 1916, so the increase of 1,011 in 1918 is quite remarkable.

For 1918 we issued 32,600 permits for cattle and horses and 5,434 permits for sheep and goats. For 1913 the numbers were 22,032 and 6,513 respectively. The increase in paid permits during the six-year period was therefore 10,568 for cattle and horses and 1,079 for sheep and goats.

For the same period the increases and decreases in permits by years are as follows:

Year	C & H		S & G	
1913	700	increase	121	increase
1914	2,500	"	346	decrease
1915	1,900	"	219	"
1916	2,400	"	292	increase
1917	3,084	"	227	"
1918	1,464	"	1,011	"

The tremendous increase in sheep permits for the past year is probably due to several factors, more particularly the boom in the sheep business and the dividing up of the larger holdings into smaller ones, owing to the loss of range on the public domain and the entrance into the sheep business of a large number of small farmers, especially in the vicinity of western irrigation projects, who have recently gone into the sheep business on a small scale.

By States the figures for 1918 are quite as interesting. The following are taken as special examples:

	Cattle and Horses			Sheep and Goats		
State	Number grazed	Permits issued	Average permit	Number grazed	Permits issued	Average permit
Arizona	340,836	1,518	224	433,453	159	2,726
California	222,722	3,142	71	581,955	464	1,254
Colorado	400,883	4,513	91	1,106,423	846	1,307
Idaho	204,033	4,185	49	1,960,161	1,100	1,782
Montana	193,108	2,926	66	810,355	480	1,688
New Mexico	192,931	2,238	86	522,508	653	800
Utah	189,532	7,397	26	442,442	1,607	524

Utah Supervisors, therefore, issue the largest total number of permits, 9,004, and the Colorado Supervisors come second with 5,359.

The figures show that, for 1918, 85 per cent of our cattle permittees--Grade (1-40 head) and Grade 2 (41-100 head)--grazed only 35 per cent of the whole number of cattle on the Forests. These grades probably cover about all the Class A permittees. The figures indicate that while we are issuing permits to a large number of small Class A cattle owners they are not building up their herds very fast.

For the last five years we have been making an especially strong attempt to take care of the small owners. The regulations have been changed in certain places to aid in this movement and as far as the data show we have taken care of and granted permits to all new applicants except in a comparatively few instances. Nevertheless, with an increase of over 10,000 permits for cattle between 1913 and 1918, the ratio between the several classes of permittees for cattle has remained almost stationary, as will be seen by the following table:

GRAZING PERMITS FOR SEASONS 1918 AND 1913

Percentages of grades, stock and
average number of stock grazed
under the four grades of permits.

1.

	Cattle, Horses and Swine			
	Permits		Stock	
	Per cent		Per cent	
Year	1913	1918	1913	1918
Grade 1 (1-40 head)	66.2	65.0	14.9	15.8
" 2 (41-100 ")	18.6	20.4	17.9	19.7
" 3 (101-200")	8.3	8.1	17.3	17.2
" 4 (Over 200")	6.9	6.5	49.9	47.3

2.

	Sheep and Goats			
	Permits		Stock	
	Per cent		Per cent	
	1913	1918	1913	1913
Grade 1 (1-1000 head)	48.2	55.6	13.7	16.8
" 2 (1001-2500 ")	38.6	32.8	41.4	38.8
" 3 (2501-4000 ")	7.5	6.3	16.7	15.7
" 4 (Over 4000 ")	5.7	5.3	28.2	28.7

For sheep the figures are somewhat better; for during 1918 eighty-eight per cent of our sheep permittees were in the first two grades (1 to 2,500) grazing 56 per cent of the whole. In Grade 4 (over 4,000 head) five per cent of the permittees grazed 29 per cent of the total number of sheep on the Forests. With sheep, as with cattle, however, the same situation exists as to the ratio between the several classes for the years given.

These figures raise some interesting questions. Personally I believe we have done and are now doing everything within reasonable bounds to aid the new small owners to obtain a foothold on the Forest ranges as well as to help our present small permittees to build up their numbers. Naturally there are a number of suggestions that will be immediately offered for improving matters. Some of these are:

1. Raise the protective limits. On a few Forests this might slightly increase the number of stock as a whole and the average per permit, but would not materially increase the number of small permittees.

2. Cut out the six-months' notice we now require from new applicants. Undoubtedly this has worked to the disadvantage of many new applicants and it will be cut out of the regulations in the next changes in the Manual.

3. Lower, and perhaps do away with the more stringent of our property qualifications. This would tend to decrease stability of many permittees and result in some of those in the smaller grades becoming entirely too speculative in their operations.

4. Allow men to secure permits who are not owners of stock but have leased or are handling it on shares, provided the applicant has the needed ranch property.

It is a well established fact that perhaps seventy-five per cent. of our present large sheep owners obtained their footing in the sheep business through a small start with a bunch on "shares." We might help many a young rancher get a start this way, but such a change would have to be well guarded.

There are several other schemes that suggest themselves in adjusting this situation, but these are the main points worth considering.

At the present time the stock business requires more capital than in former years. A good cow pony, a yearling steer, and a well-handled rope are no longer a basis for founding a range herd. It requires money, well-developed ranch property, and a reasonable permanence in the neighborhood to get a start in the business. Our Class B men as a rule are the ones who must be depended upon to build up meat production. They are well established, have their ranches and equipment properly developed, and are not experimenting, but are in business to stay. Too many of the little fellows get a small start, become discouraged, and sell out to their Class B neighbors who thereby become more than ever a fixture in our Forests. The situation is already a problem on several southwestern Forests, where through such transfers Class A men are becoming extinct.

The rapid passing of the open ranges throughout the West is bound to reduce very materially the number of new settlers around our Forests, although the 640-acre stock-raising homestead law will operate to increase them for the next four or five years. I do not, however, believe we can consider this class of settlers as a permanent addition to the stock-raising fraternity of the West. That movement is entirely too speculative in its nature to make any great changes in the number of settlers, although it will unquestionably increase to a very considerable extent the number of stock on the lands. But it will not be the original 640-acre settlers who will bring about that result; it will be their successors.

Therefore, on the whole, it seems to me our present policy, while it might be modified in a few particulars, stands upon a reasonably sound economic basis and we should make no radical changes in our general plan of administration.

WILL C. BARNES.

In the Grip of the "Flu"

The epidemic continues to spread in Washington and the latest report gives the number of cases as more than 20,000. The Forest Service has not escaped and a good many of the Offices have been more or less crippled by the absence of several members for a week or more. Mangan, Sherman, Shipp, Shannon, Jones, Norcross, Potterton, Weber, McConville, Shaffer, Mrs. Crocker, Miss Edith Simonson, and Mrs. Malcolm have been sick; Reed's and Kelleter's entire families have been in bed for some time and the two men have been endeavoring to take care of them all, since it is impossible to get a nurse now; Mr. Ballard, Miss Anderson, Miss Palmer, and others have had much the same experience. Mr. Hargrove's wife died of pneumonia following an attack of influenza and one of his children is now sick with it. In fact, it is impossible to count on anybody's being able to appear for business, and those who have been lucky enough to escape themselves and keep their families away from the dreaded germ have had to buckle down to work with all their might to fill up the gaps.

In many of the Government Departments a plan has been adopted of allowing the clerks a fifteen-minute recess in the morning and again in the afternoon, during which the windows are all opened and the offices well aired. This has not been necessary in the Forest Service, but the Acting Forester has appointed G. B. Sudworth and L. C. Everard as fresh-air inspectors to see that every office in the building is properly ventilated.

About the Grapes Sent to Camp Meade

How I wish I might give you a word picture, you great-hearted people of "Forestry," of what your thoughtful kindness did for our stricken boys at Camp Meade, my own among the number! My first visit to the hospital was at night; my next at that mystic solemn hour when the stars are loath to give place to the sun, and it seemed to me I was passing through "the valley of the shadow of death." No civilian who had not received the dread telegram was admitted. There was tragedy on every face, an occasional smile, but oftener tears. As many strangers as were there--and the Red Cross (a thousand times God bless it!) building was crowded to overflowing--there were hundreds of lads who saw no familiar face or heard a voice that spoke of home. Many have never received a line from dear ones since entering the army. It was to these that my heart turned, and it was to these that you sent a special message, for it meant some one was thinking of them. I am sure that I do not exaggerate when I say many more than a hundred of our brave soldiers who are to be the standard bearers of Democracy enjoyed the grapes, from the cheery convalescents who accepted them with characteristic American-boy enthusiasm to the ones whose faces were turned to the West, and who could only look their gratitude.

For them, for my son, and for myself, accept my heartfelt thanks.

ANNABELLE POPE MULFORD.

Government Employees Mutual Relief

In these days when influenza is rampant the country over, I feel that the attention of every man in the Service should be directed to the desirability of his obtaining membership in the Government Employees Mutual Relief Association. Employees in the Forest Service, Geological Survey, Reclamation Service, and certain other Government Bureaus are eligible to membership in the association.

The dues are $12 per year, payable in payments of $6 each January 1 and July 1. I will not attempt to outline the various benefits in this letter and will merely state that if a man is taken with a serious illness which involves going to a hospital, the employment of a trained nurse, surgeons, etc., he may, within the calendar year, receive $450. If death ensues, reasonable burial expenses are paid and the widow receives $100 or $200.

Mr. Kiefer and I have absolute inside information on the merits of the association. Kiefer had a serious operation a number of years ago, and he had no sooner gotten over that than he was unfortunate enough to fall off a cliff while fighting fire. In both instances he received from the association $450. During the past eight years I have had a couple of serious operations, and the relief which the association extended to me was a very real help. I could recite numerous other cases, but it is wholly unnecessary.

I suggest that Forest Supervisors talk this matter over with their men and take the necessary steps to get application blanks by addressing the Secretary of the Government Employees Mutual Relief Association, Mr. Martin J. O'Toole, 3606 Thirteenth Street, N.W., Washington, D. C. I believe every permanent male employee of the Forest Service can afford it and in fact should belong to the association, regardless of what other sick, accident, or other form of insurance he now carries.

H. O. STABLER.

An Addition to the Oregon National Forest

A bill has passed both Houses of Congress adding to the Oregon National Forest all the lands on the watershed of the city of Portland, Oregon, included in the grant to the Oregon and California Railroad Company, title to which was revested in the United States. The total area is 10,760.73 acres. The lands are very valuable not only for their heavy stand of commercial timber but also for the protection of Portland's municipal water supply. It is believed that their chief value will always be for watershed purposes. The measure only awaits the signature of the President to become a law.

Forest Service Exhibits at State Fairs

C. A. Lindstrom was in town for two days last week and reported that the Government exhibit in his charge, composed of exhibits from the Departments of War, Navy, Agriculture, Commerce, the Food Administration and the Committee on Public Information, is meeting with enthusiastic reception everywhere.

The exhibit was shown first at the Illinois State Fair, at Springfield. The major portion of it was then shipped to Detroit, where it was shown at the Michigan State Fair. One carload, composed of Navy and Agricultural exhibits, was sent to the State Fair at Huron, S. Dak., and was afterwards shown at the Interstate Fair at Lemmon, S. Dak. A small exhibit on forest fire protection and wood waste utilization was a part of this exhibit. Supervisor Duthie, of the Black Hills National Forest, saw to it that the territory covered was informed concerning its significance and purpose. After the conclusion of the State Fair at Detroit, the material shown there was sent to the Kentucky and Tennessee State Fairs, at Nashville and Memphis, thence to the East Tennessee Fair, at Knoxville, and from there to the largest fair of the Southeast--the Southeastern Fair, at Atlanta.

The Forest Service portion of this exhibit contains a model and charts and pictures advocating the burning of local wood for fuel instead of coal, to relieve the coal shortage and the strain on transportation. A working model shows five causes of forest fires. Maps, specimens, and charts show the advisability of the treatment of fence posts with preservatives. Seven models show the effects of good and bad lumbering for 5, 15, and 20 years. Several charts urge the planting and production of black walnut and call attention to the need of the Government for black walnut for gunstocks and airplanes and black locust for treenails.

Besides the Forest Service, the Bureaus of Animal Industry, Plant Industry, Chemistry, Markets, Entomology, and Soils are represented in the agricultural exhibit.

The War and Navy exhibits were a great attraction everywhere, consisting of actual specimens of guns, rifles, cannon, depth bombs, mines, torpedoes, surgical apparatus, gas masks, and many other appliances used in this war.

Lindstrom says that the exhibit is undoubtedly proving worth while in arousing war fervor, teaching the lesson of conservation of foods and resources of every kind, facilitating agriculture and increasing crop production. The Four-Minute Men in the various cities visited have cooperated with the exhibit and through them bonds and war savings stamps are sold in increasing quantities. The exhibit is now at Atlanta and is scheduled to visit Macon and Augusta, Ga., and Jacksonville, Fla., completing its work about December 10.

The Service has exhibits similar to this in general plan now being shown on five other circuits, as parts of general Government exhibits. Altogether the six circuits will cover thirty-six different fairs in all parts of the country.

Arbor Day in North Carolina

A special call for a full observance of Arbor Day has been issued by the Conservation Department of the North Carolina Federation of Women's Clubs. November 8 has been legally designated for this purpose and it is proposed to dedicate this year's celebration particularly to the broad phases of conservation.

The plan of celebration provides for the arrangement of suitable Arbor Day programs on the school grounds. Special Arbor Day manuals are being distributed by the State.

Suggestion is likewise made that each community plant a tree for every man in the service.

Washington Notes

The soldiers in the hospital wards at Camp Humphreys were made happy last Saturday by a donation of jellies and grapes from the ladies of the Forest Service. The jellies were homemade and the grapes fresh from the vine; the very sight of them must have made the "doughboys" smack their lips and feel better. Mrs. Conway and Miss Glase took the goodies down to camp, transportation being furnished by Mr. Potter. The ladies say he smoothed out the rough places in the road by just hitting the high spots. Anyway, the expedition was a success and a good turn done for the soldier boys.

The Forest Service Committee on Clerical Efficiency has been reorganized and now consists of Messrs. Potter (Chairman), Barnes, and Sherman. Similar committees exist in each of the several Bureaus and Offices of the Department.

Rolf Thelen went to Philadelphia on the 17th to see why certain airplane struts being tried out in the City of Brotherly Love would not stay straight.

T. C. Foster of the Indian Office delivered a four-minute speech on the Fourth Liberty Loan to members of the Forest Service Saturday morning. C. M. Ballard, who is the "Committee" in charge of the work for the loan, reported that the Washington Office had passed the $25,000 mark.

Assistant Forester Barnes made his escape from the "Flu" in this city by attending the opportune meeting of the Livestock Association on the Shenandoah Forest. Mr. Barnes expects to be gone about ten days. Grazing problems on the Shenandoah are reported to be very intensive and are a close approach to intensive grazing conditions in some of the western Forests.

Inspector of Grazing J. T. Jardine has returned to town from an extended western trip.

Captain A. M. Cook, former Supervisor of the Routt, paid us a call last week. Captain Cook is back in this country engaged in organizing additional troops.

District 1

During the winter 1917-1918 winter killing of timber occurred on the Helena and Deerlodge Forests. According to the report just issued by the Laboratory of Forest Pathology at Missoula, the winter killing was confined to a well defined strip or belt along the mountain sides. The needles on the affected trees or parts of trees turn brown, leading to the name of "red belt injury."

Last winter the damage was confined to a belt from one-fourth to one-half mile in width, and parallels the valley at an elevation of from 5,000 to 7,000 feet.

Trees in the more exposed positions were the most injured, though not all trees on the same side were affected to the same degree. Douglas fir, western yellow pine, and lodgepole were the most injured. In some instances as high as 30 per cent of the total stand was killed.

A study of climatic factors and extent of injury indicates that the trouble is caused by excessive transpiration of the needles at a time when the remainder of the tree is frozen. This loss of moisture can not be made up, the needles die, and if the foliage is affected to a sufficient extent the tree is killed. Such a condition results when a warm and dry Chinook wind follows a prolonged cold period.

C. A. Dahlgren, at present lumberman on the Coeur d'Alene Forest goes to District 2 about November 1 as successor to Lumberman E. B. Tanner, who has resigned from the Forest Service to take up work with T. A. Schomberg of Denver, a leading Colorado lumberman and mill owner.

R. A. Hamilton, Supervisor of the Clearwater, A. P. Townsend, Deputy of the Beaverhead, and Forest Ranger Roy Phillips of the Iolo have submitted their resignations and will enter the military service.

U. S. Swartz has returned from the St. Joe Forest, where he spent ten days making a 100 per cent stump cruise on a cut-over area on Big Creek. This drainage was burned in 1910 and hardly a living tree can be found. He reports white pine seedlings one and two years old in abundance on the area. Whether or not this is characteristic of the entire drainage is not known. This has an important bearing on the mooted question as to whether or not sheep grazing should be permitted on white pine burns. It is generally admitted that the trampling (if not the nibbling) of sheep and the consequent slipping of the soil do considerable damage to young seedlings on steep slopes. It had been assumed that it was safe to allow grazing five years after a fire, on the ground that the seedlings are then of sufficient size to take care of themselves. Now Swartz reports seedlings just coming in eight years after the fire, which upsets the five-year theory.

At the close of the grazing season on the Selway National Forest, a total of 1,224 cattle and 35,955 sheep had been grazed upon the Forest.

The cooperative road project on Twin Creek Clarksfork Valley has just been completed. Three-quarters of a mile of road was built at a cost of about $800. Of this, $350 was from the ten per cent road fund, $200 from Bonner County, and $300 from interested settlers. There is about one-half mile of road to be completed, which involves very little heavy work and will be completed by the interested settlers. The road location is in a deep canyon, and the old road was washed out during last December's floods. Its loss stopped the operation of a fair-sized timber sale, and put about eight settlers out of touch with the Clarksfork Valley.

District 2

District Forester Riley attended the District Foresters' conference at Ogden. After the meeting, accompanied by Colonel Graves and District Forester Kneipp, he left for the Teton National Forest and the Jackson Hole country, Wyoming, to make a further study of the elk range problem.

Supervisor Huber C. Hilton of the Michigan National Forest has been assigned to special war service in connection with the walnut production study. Mr. Frank H. Carroll of the District Office has left for East Tawas to keep things running on the Michigan until Hilton's successor is decided upon.

"Buy Bonds or Fight"--Denver's Fourth Liberty Loan slogan--resulted in the City completing its $18,000,000 quota on Liberty Loan Day, October 12. $8,300 were contributed by members of the District Office, against a fixed quota of $6,000. The Loan Committee says that we are "Going Over the Top" with 100 per cent subscription, even including messenger boys.

Road work has been discontinued on the Sedalia-Becker Springs project on the Pike National Forest, on account of the high cost of labor and supplies. Work on the Rabbit Ear project on the Routt Forest and the Durango-Silverton Highway on the Durango Forest is still in progress and will be continued as long as weather conditions are favorable.

Reports from Minnesota state that abnormally high winds and hot dry weather resulted in a very serious fire situation. Towns have been destroyed and many lives lost in the conflagration. So far the fires have largely been confined to areas outside of National Forests of the State. The Forest Service is doing all in its power to help fight fires. Fire Inspector John McLaren is in Minnesota assisting in the suppression and relief work. Latest reports indicate that only one fire is now burning on the Minnesota Forest and that is under control. Rain has relieved the situation.

District 3

The total income of the Coconino National Forest for the fiscal year ending June 30, 1918, was in round numbers $139,000. Of this, $99,000 was for timber, $36,000 for grazing, and $4,000 for special uses. The total cost of administration was $53,000, which leaves a net profit of $86,000.

Grazing Examiner Hill, Supervisor Marsh, and Ranger McKenzie recently made a five-days' trip over the Coconino Forest range north and east of the Frisco Peaks to investigate grazing conditions, particularly with respect to water holes and the possible need of a drift fence between the grama and bunch grass ranges, in order to secure more complete utilization. The proper utilization of this range is still hindered by lack of sufficient water, and an enormous amount of forage is going to waste both in the bunch grass range and the grama grass range.

Stockmen of northern Arizona met at Tucson recently to initiate a movement toward cooperative purchase of feed and shipping, and to bring in Federal funds for stockmen where necessary. The Forest Service was represented by Inspector of Grazing Jardine and Supervisor Pitchlynn of the Coronado Forest. A questionnaire calling for certain information will be sent to the stockmen, in order that definite plans may be laid.

District 6

National Forest Examiner Ryle Teed, of the Washington State Land Exchange, who has made his headquarters at the State House, Olympia, for the past year, has moved to the Portland Office.

Dr. L. L. Burlingame, who has been carrying on white pine blister rust inspection work in Oregon and Washington during the past field season, has returned to San Francisco to resume his work as head of the Department of Botany, Leland Stanford University. E. C. Randall, who has been assisting Dr. Burlingame in this work, has also returned to California, where he will enter the Students' Army Training Corps at Leland Stanford University. No trace of white pine blister rust has yet been discovered in Oregon or Washington. All but one of the plantations of imported five-needle pines in the two States have been inspected, and all but two plantations of imported ribes stock in Washington have been examined. Very little of the imported ribes stock planted in Oregon has as yet been inspected.

Logging Engineer L. A. Nelson is now acting in charge of the District Office of Products.

James T. Schuyler, Senior Highway Engineer in the Office of Public Roads, is attending the Civilian Officers' Training Camp at the University of Oregon, Eugene.

A contract covering another block of airplane spruce on the Olympic has been forwarded for signature to the "H.H.& S. Lumber Company." This block contains 700,000 board feet. The sale price is $5 per thousand. This company previously purchased a block of airplane spruce in the same region, on which it is now operating.

T. T. Munger, who has recently returned from an auto trip to Hood River, reports that the continuation of the Columbia River Highway between Cascade Locks and Hood River is now in good condition for travel.

Ninety-two War Savings Stamps and one hundred thirty-nine Thrift Stamps were sold in the District Office during September by Miss Kilburn. So far 217 members of the Forest Service in the State of Oregon have purchased War Savings Stamps to the value of $16,432.75.

Oregon was the second State in the Union to go over the top with the Fourth Liberty Loan. Her quota was $33,708,100.00. More than eighteen million dollars of this was subscribed in Portland.

The cattlemen of southern Oregon are anxious for the addition to the Crater Forest of a few additional townships immediately north of the California line. A bill to this effect has been introduced in Congress. Fourteen thousand acres of the area are vacant land and thirty thousand acres are "O.& C." land. The area is not heavily timbered and its inclusion in the National Forest is desired mainly for grazing purposes.

A bill has been introduced providing for the addition of certain "O.& C." revested lands to the Oregon. This land is in the watershed of the Clackamas River and it is included in the Oregon City watershed. The bill also provides for the inclusion of certain similar land in the Siuslaw, on the city watersheds of Corvallis and Dallas. This land lies largely outside the present boundaries of the Forest.

Several land-exchange negotiations are under way, but work so far is largely of a preliminary nature. These exchanges are desired both on Forests where authority exists already and on others where private owners desire legal authority to make exchanges. Owing to the belated passage of the appropriation bill, little field work has been possible on these projects. However, all the areas of private land in the Bull Run division of the Oregon which it is desired to exchange are being cruised and appraised. The object of the proposed exchange in the Bull Run watershed is to secure a solid block of Government-owned timberland under city and

Forest Service protection for the city water supply of Portland.

It has not been possible to complete cruises of all selection areas in the Washington State Land Exchange, on account of inability of the General Land Office to obtain a sufficient number of surveyors to survey the selection areas.

Seventeen members of the Portland office, who were sworn in as associate members of the Legal Advisory Board, gave assistance to 243 men in filling out their questionnaires.

Fourteen hundred forty-five head of yearling wethers belonging to Pierre Ganguet and grazed on the Wenaha National Forest have just been sold at Walla Walla for $10.75 per hundredweight. The sheep were marketed after a 20-mile drive over the mountains, and averaged one hundred fifteen and four-tenths pounds each.

There was a 200-word story about the girl lookouts on the Cascade in the Paris edition of the New York Herald for August 23, 1918. The story tells of the satisfactory work done by five girls employed by Supervisor Seitz, and was carried under the caption of Oregon Girl Lookouts Save Forests from Fire.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

October 28, 1918.

Forest Fires in Minnesota

The following letter has been received from National Forest Examiner John McLaren, of District 2, and tells of his experiences in connection with the great conflagration which recently occurred in Minnesota:

> The disaster is nothing more than the logical result of carelessly allowing fires to remain unextinguished for long periods. Along the Soo Line from Moose Lake to Lawler, fires have been burning for a month. I came in over the Canadian Northern last Thursday and there were fires almost the entire distance between here and Virginia. No attempt was made to fight many of them, others were fought in a half-hearted manner, and I wish I had the power to impose sentence on the man who says 'Oh, that fire is of no consequence. It is burning in a peat bog,' or 'It is in tamarack and can do no damage.' These remarks have grated on my ears dozens of times in the past month.
>
> The number of men that can be employed with the total funds available from State and Government is hopelessly inadequate to cover the approximate 20,000 acres, and in the face of Order No. 29 by the Safety Commission many fires were set out by settlers clearing land, and I know personally of two railroad fires where employes were negligent in handling the situation.
>
> I have in mind that there were literally hundreds of small fires burning for longer periods, no one of them doing any great amount of damage but edging along and becoming larger in volume daily and the ground and litter becoming drier each day until on Saturday, October 12, there having passed a considerable period of subnormal precipitation, fires ran together and assumed such a volume that a 60-mile gale occurred which was the direct result of the fire itself. No high wind velocity occurred except in the path of the fire and the District Forecaster here has stated plainly that the gale was due to no other cause. Once going on this scale and fanned and carried by the gale it created, sad as it is, it is not to be wondered at that some thousand lives were lost and immense values in livestock and property consumed in a few hours' time.
>
> There is a very great lack of communication still and you can not get definite information from any source about the area burned nor where the most danger still exists. From meagre information, the fire region extends from as far west as Cass Lake on an easterly line to Lake Superior, and from Cuyuna through Aitkin and Moose Lake nearly to the eastern border of the State.
>
> By 3 p. m. Saturday, October 12, the sun was obscured in Duluth by smoke. I tried in various ways to learn where it was from. There was no apparent apprehension in the city and the best I could learn was that part of the police and fire departments had gone out some eight or ten miles to assist in fighting some brush fires. Along toward evening I saw the fire chief and he said there had been some close shaves for some of the settlers but thought the fire would not be of a very serious nature. About 7.30 the wind was strong, and by 8 the gale hit. The entire city was threatened. All policemen and firemen were called to duty, the Home Guard was mobilized and practically every auto in the city was pressed into rescue work. Speed limits were annulled and this fact accounts for thousands of lives saved. Relief trains saved Brookston residents and those in Cloquet (the latter has a population of 9,000) without loss of life, although both towns were completely wiped out.
>
> Fires, some of them large ones, broke out in Duluth and Superior, but were efficiently handled by the fire department and by 2 a.m. things began to quiet down so far as danger of fires was concerned. Refugees were arriving by the thousands, hotels and public buildings were taxed to the utmost, but the Red Cross and Home Guard organizations did a wonderful work in bringing order out of chaos, in feeding, bedding and clothing thousands, and giving aid to injured.
>
> The devastation is great and the scenes pathetic in the extreme. There are thousands of them but just as an illustration: Last evening we overtook a man

along the road, gave him a lift and stopped where he asked to get off. Looking around we could see that every building, all fences and machinery, as well as haystacks, had been consumed. Questioning him we learned that he had saved his wife and eight children in a water hole and that his family and another had now taken refuge in a shack about a mile off the road, that they were in rags and had eaten their last mouthful. We gave him some sandwiches and apples we had brought for our own use, and promised to try and get relief for them the next day. Arriving at Brookston, Sergeant Miller immediately scraped together food enough to tide them over a few days and said if we would pilot a relief car back, they would get to them that night. This was done. The youngsters were measured and clothes delivered to them today. The relieved tension of those four parents and the unbounded joy of those eleven kids, would strike the heart of a stone man.

Hundreds of autos were burned along the roadsides and in many cases the occupants did not escape. Some were roasted in root cellars, others drowned in wells, and groups of others died in open fields and in swamps where they had gathered to try to save themselves."

A Panacea for Forest Fires

Assistance to end the nation-wide evil of fires was tendered the Forest Service recently by a volunteer who concludes that the fires in Minnesota belong to a terrible chain of devastations and losses of life by fire which have occurred in Chicago, Baltimore, San Francisco, etc.

The panacea offered consists in the alleged simple method of excluding oxygen, as against the present-day method of the old wet process, which the volunteer considers indicative of a lack of progress and out of question with regard to forest fires and big conflagrations.

The exclusion of oxygen is proposed by the simple process of using fire-proof blankets. Samples of such fire-proof material were submitted, as was also a 24-page booklet in French, which we did not read.

The advent of the airplane has been an incentive to the volunteer to evolve new methods of locating forest fires, either by means of laying fire-proof blankets on burning or adjacent trees, putting up vertical fire-proof wall-partitions, or spraying a combination of earth-matter with salts that lose their crystalline water, which when melted under the heat form incrustations that would arrest the speeding of flames. He continues that, as it is possible to throw down tons of bombs it is not an extravagant supposition that an airplane could rise aloft and deposit protective materials to check the spreading of fire, as flames jump from treetop to treetop, and the only way to stop this is either to attack the fire directly or isolate it from above. To devise methods and appliances for any of the operations is a simple matter, according to our friend.

Suggestion is made that after the war we will have the aviators and airplanes and should at once begin to map out the territories into districts, locate airplane stations, blanket depositories, and get on hand a supply of mixtures of earthy salts.

American Red Cross

The following letter was recently received from Miss Carolina Hendricks, formerly of the Forest Service, by a member of the Washington Office:

4, Place de la Concorde,
Paris,
August 31, 1918.

* * * * * * * *

Recently another American girl and myself and two American officers were treated with great courtesy by a Member of the City of Paris Council. Contrary to custom he showed us through the Hotel de Ville (City Hall). In the Council Chamber itself there were a number of things of interest--among others we saw two desks of former Members who had lost their lives in the war. These were decorated with the medals of honor they had won and were draped with crepe. We then went on through the most wonderfully beautiful halls, private council rooms, etc. One room had all one side covered with a picture of the reception given Lafayette upon his return from taking part in the American Revolution. I wish I could describe some of the beautiful paintings, but I could not do them justice. We saw from one of the windows the church that was bombed last Good Friday when so many people were killed.

Probably you heard of the big conference held here recently of Allied Women War Workers. The closing mass meeting was very interesting. There were representatives of the American, English, and French R. C., Y.W.C.A., Y.M.C.A., French munition workers, British W.A.A.C.S., U. S. telephone operators, nurses, doctors, ambulance drivers, Salvation Army and other societies. There were probably not mor than a dozen men in the theatre--the speakers and a few army officers, etc. We were furnished music by a good old nigger band from the U.S.A. We surely made a b noise when they played Dixie. We had a cable from President Wilson and the place rang with applause when it was read. One afternoon during the conference we were invited to the President's house for tea, but a great many of us did not go as we were very busy in the office and did not feel that we should neglect R. C. work for pleasure. There were, of course, a lot of nurses on night duty who enjoyed it very much.

I have a room for a month with a French family and it is much cheaper than living at a hotel. Have my breakfast in my room without extra charge. The room really belongs to one of the R. C. boys here in the office who is not well and is down on the Mediterranean for a month, and I am holding it for him while he is gone and incidentally am glad to get it because it is cheap.

We have had only two bombardments by Big Bertha since I have been here and about three air raids--two of the latter at night, when the siren would shriek forth a warning to get off the streets and take to the cellars. The danger--about the only danger--being from our barrage which would fall back down after being set up so that it was not safe on the streets. Of course, people go to the cellars on account of the possibility of an enemy plane getting in and dropping bombs. About two weeks ago one of the devils sneaked in in the middle of the morning and dropped a bomb, but I hear we brought it down. The papers are so small that we know very little except the most important things.

I usually get the Paris edition of the New York Herald, which is 20 centimes (4 cents) a copy and some mornings it only has one page.

Peter Rabbit! the real bread I am going to eat when the war is over, and the newspapers I will read! Won't you all invite me to tea sometimes like you have done so often? I buy jam at the commissary here and put it on the bread to take the taste of friend bread away.

Please give my love to all my friends there in the Office and a great deal to your family. Don't advise any women to come over unless they are plenty old and thoroughly well-balanced and can stand most any old thing in the way of horrors. At the same time they might not have anything bad to stand. Sometimes there are a great many exciting experiences, but I mostly feel like a slacker sitting back here in safe Paris when so many of our boys are giving up their lives on the front.

* * * * * * * * *

Fire Cases in California

Catching and convicting firebugs is still a thriving business in California. The summary of the present season shows under the State law 60 convictions with imposition of sentence, 24 convictions with suspended sentence, and 9 acquittals, and under the Federal law there have been 3 cases, which makes a total of 96 cases.

The Angeles Forest leads with 38 cases under the State law, of which 30 resulted in conviction and but 8 acquittals. Sentence was suspended in 12 cases.

The handling of the fire situation in this effective manner has brought forth many interesting incidents. On the Angeles, G. W. Penfield was charged with leaving a camp fire, he pleaded not guilty, was tried, found guilty, and fined $50. Ranger Marx handled the prosecution. The defendant was represented by one of the City Trustees and by the Los Angeles County Public Defender.

Chester Frederich, charged with leaving camp fire, is now out on a thirty-days' suspended sentence, supplemented by order of the court that he stay out of the mountains the remainder of the year.

On the Santa Barbara, E. E. Elliott was charged with having left a camp fire, and was released on a suspended sentence. He duplicated his performance a then got a $50 fine for the second offense.

On the Trinity, Anderson Mesket, a stockman of Hooper, paid $250 and court costs for setting fires on the range. John Kutz allowed a fire to escape while clearing land. He is now on six months' probation with instructions to assist Forest officers and to use his influence with the public to prevent fires.

On the Stanislaus, Lopez and three companions each received from Judge Van Fleet of the U. S. Court a four-months' jail sentence for wilfully setting fires.

On the California, Ed Burke got 18 months time at McNeils Island from Judge Van Fleet. For setting fires along stock trail it cost Davis a $75 fine and Howlett a $200 fine. The Forest Service was represented by Supervisor Coffman and Deputy Mace.

District 3 Solves Uniform Question

The much discussed question of uniforms for Forest officers seems to have been satisfactorily solved by District 3, according to announcement recently made in its Daily Bulletin. It was stated that "a special sample of cinnamon brown paint has been made up for District 3 and will probably be adopted as the standard body color. Meanwhile the Forester is favorably disposed to District 3's suggestion of adopting a standard color for the entire Service."

Nothing was said about any color for trimmings, neither seems there to have been consideration as to climatic conditions in the other Districts. We fear that there will be some objection made by Forest officers not situated so close to the equator as those in District 3.

The Future of the Black Hills National Forest

Probably Forestry has reached as intensive a stage on the Black Hills Forest as on any Forest in the west. The present silvicultural policy practically calls for the removal of mature and overmature timber only and looks toward a second cut in thirty years. Two and three storied stands are common and there are thousands of acres of thrifty reproduction of from 25 to 40 years of age. Added to this are many logging chances at present supporting a heavy pole stand of tie size. There are still many millions of feet of mature and overmature timber which a heavy timber sale business is rapidly removing, the cutting resulting in a nearer approach to a normal yield. If it is unhampered and has careful handling, the Black Hills region should be able to meet the heavy demands for timber from the surrounding prairie States for an indefinite period.

But now there appears a menace to a situation apparently ideal from a forestry standpoint. Under the present laws timber from valid mining locations cannot be sold and on sufficient showing the locations can be brought to patent, which carries with it title to the timber. In a major portion of the Black Hills sufficient mineral is present to carry a location to patent. Experience has shown that but very few of these claims are ever developed for mining purposes, and the timber is universally sold to some lumber company.

It certainly gives a man interested in future forestry a feeling of depression to see hundreds of acres of thrifty growing yellow pine being slaughtered for cordwood by some mine locator who is developing his claim, especially when there are thousands of cords of dry wood on adjacent areas. Under such conditions one is led to wonder if there will be sufficient Forest area left to administer by the end of the next decade or two.

Only one remedy occurs to me which will not curtail the mining industry and will at the same time permit intelligent handling of the timber resources. All title to timber should remain in the United States, provision being made for the allotment of sufficient timber to miners for all legitimate development work free of cost if necessary.

E. W. TINKER.

Relief for the above condition may be at hand, at any rate the governmental machinery which can do the most to put a stop to this interference is moving.

The Acting Secretary has addressed a letter to the Attorney General recommending that the United States Attorney for South Dakota be authorized to take such action as he may deem appropriate, either by filing a suit for an injunction or otherwise to prevent certain mining claimants from interfering with a sale of timber on Government lands in the Black Hills Forest.

Recently a sale contract was made and at once certain parties asserted their claims to the land under these alleged mineral locations, evidently with the view of demanding from the timber-sale operators the payment of a sum of money for permission to cut the timber from the area embraced within their mining locations.

Special Requirements for Temporary Employees

For the duration of the war and until normal peace conditions are restored it will be possible to employ temporary forest rangers and scalers who do not meet in full the present requirements for these positions. Under existing Civil Service rules it is necessary that temporary employees possess the qualifications exacted of applicants for the examination, where such temporary employment is made pending the establishment of an eligible list. It has been found impossible to do this at present and so the following special requirements have been set by the Commission for temporary appointments during the period of the war.

For forest ranger there are no age limitations; the applicant must be physically able to do the work to which he may be assigned and have had at least two years' experience in at least one of the lines of work of sawmill or woods work, management of range livestock, land surveys, or fire patrol. If he lacks such experience, the applicant must convince the officer recommending the appointment that he possesses the necessary qualifications and ability to learn the work in a reasonable time.

For scaler there are no age limitations; the applicant must not have any physical defect that will interfere to any considerable extent with his duties, and he must be able to move quickly. Good eyesight is essential, but loss of one eye, if the other is not impaired, is no bar. Common school education or its equivalent is required and at least two years' experience in scaling, or at least three years' experience in sawmill or woods work, which must include at least six months of scaling.

The Wood Fuel Campaign

Within a month after the United States entered the war in 1917 steps were taken by the Forest Service and the States Relations Service to inaugurate a wood fuel campaign. In December a cooperative agreement was entered into by Forest Service with the Fuel Administration whereby several foresters were sen out to organize wood fuel campaigns. The salaries were paid by the Forest Ser and expenses by the Fuel Administration. The men were in the field from Janu to April, 1918, which was too late to secure the best results.

The work was undertaken by the organization of State Wood Fuel Committees appointed by the State Fuel Administration, with the State forester or a professor of forestry acting as wood expert. In a few instances County committees were appointed. The work was most efficiently organized in thirteen States: Maine, New Hampshire, Massachusetts, Connecticut, New York, Maryland, Michigan, Minnesota, Iowa, Missouri, North Carolina, Tennessee, and Virginia.

It is estimated that there was an increase of about 30 million cords, equal to over 15 million tons of coal last year, making the total consumption of 120 million cords. Under normal conditions about 83 million cords are consumed on the farm.

The work was carried on by a campaign of publicity through news items, parties, meetings, movies, holding of community wood-cutting bees, the formation of cut-a-cord clubs, and the inauguration of municipal woodyards and central marketing communities.

The campaign was started with the idea of increasing the domestic use of wood in rural districts and small cities. One of the surprises was the wide use of four-foot wood in the factories of Massachusetts, where wood was mixed with coal. The wood cost the owners about three times as much as soft coal, but they used it gladly in order to prevent the shut-down of the factories.

Present conditions indicate that there will be a big coal shortage, with a variation in seriousness in the different localities. This impending shortage is not fully appreciated by the public because of lack of complete understanding of existing conditions.

Plans are under way which aim to bring the Forest Service and the U. S. Fuel Administration together on the question of wood for fuel and thereby make effective the campaign for saving coal by the substitution of wood as fuel.

Walnut Production

The field work in connection with walnut production is keeping the various forest officers detailed to this work very busy. The men visit the various mills, observe the process of manufacture and make suggestions for changes and improvements, as conditions warrant. The chief purpose is to get the manufacturers to produce the maximum amount of walnut material and at the same time do the manufacturing in such a manner as to reduce wastage to a minimum. Consideration is also given to increasing sources of supply of logs and to enlarging the markets for the manufactured product.

National Forest Receipts Show Increase

National Forest receipts for the months of July, August, and September amount to $511,466.49, which is an increase of $42,822.84 over receipts for the similar period in the previous year. Of the main activities, timber sales show the largest increase, amounting to $18,475.01. Grazing trespasses brought in $16,437.12.

Pencils in China

China's first pencil factory was recently put into operation. This is an Anglo-Chinese enterprise which hopes to obtain a large share of the pencil trade in the Far East hitherto controlled by the Germans and Austrians. The machinery is of Japanese manufacture but it is planned to secure additional equipment from England and America. Materials--graphite and wood strips--are also imported from America.

This may open up an additional market for incense cedar as a pencil wood, the adaptability of which for such use was indicated in a recent Forest Service publication.

Fourth Liberty Loan in Washington

Bonds of the Fourth Liberty Loan to the amount of $27,550 were subscribed to by members of the Washington Office, 191 employees subscribing out of the total of 246.

A total of $588,700 was subscribed to by the employees in Washington of the Department of Agriculture. The Bureau of Markets with 936 employees had a subscription of $150,350. The Forest Service ranks seventh in number of employees and sixth in amount of subscription.

War Brevities

One and a quarter million tons of coal have been saved during the seven months' operation of the daylight saving law, according to the United States Fuel Administration.

The War Industries Board has issued an order prohibiting the use of steel where wood can be used, according to recent announcements in trade papers. At the same time instructions were given to the various purchasing departments of the Army to restrict their purchases accordingly.

Private construction work at Stevens Point, Wis., where a large paper pulp mill is being built is following out this order. Laminated wooden trusses are being used. The largest trusses--six in number--are 96 feet long. There are twenty-one 50-foot trusses and seven 64-foot trusses. Twenty thousand feet of the material is redwood and the remainder southern pine. The redwood is to be used directly above the big vats, this wood being considered the more fitted to withstand the action of the steam arising from the vats.

A yellow poplar tree in the Cumberland Mountains recently brought about $11,000 as a manufactured product, according to newspaper reports. The tree was consigned to Cincinnati for manufacture and yielded 7,000 feet of first class lumber, with several hundred feet second-class lumber thrown in.

More than 120 miles of redwood piping for water and sewer purposes for American military camps in France and the United States has been contracted for.

A Douglas fir flagpole 346 feet high has just been erected at Camp Lewis. The flag carried is thirty feet by ninety feet.

Continued shortage of feed in Great Britian is emphasized by the action in encouraging roadside grazing. The labor side of the question is met by the part-time employment of children. Scarcity of feeding stuffs of all kinds has become so great as to imperil the already scant supply of milk, a condition due partly to plowing up pastures and grassland for vegetable and cereal production. Present conditions here in America where land is more abundant point clearly to the need for maintaining not only our livestock but also an abundant supply of coarse grains and forage, in anticipation of greater foreign demands for meats and dairy products.

Washington Notes

Colonel Graves has returned to Washington from Ogden, where he had a conference with the District Foresters.

Assistant Forester W. L. Hall is now on military furlough from the Forest Service and as Major in the Engineers is busily engaged in the organization of the additional battalions for the 20th Engineers (Forestry).

J. H. Foster, formerly of the Forest Service and more recently State Forester of Texas, was a recent caller at the Atlantic Building. Mr. Foster is anxious to get into some of the war work of the Service.

R. D. Forbes, Forester of the Louisiana Conservation Commission, will cooperate with the Forest Service in looking up walnut in Louisiana.

Influenza has hit C. G. Bates, of District 2, and as a result he will not be able to take up the walnut work in Nebraska, Iowa, Kansas, and Missouri. Plans are under way to make another assignment to this territory so that the work may begin without delay.

Salvatore Lojocono, of the Office of Drafting, has left the Service and gone to Camp Thomas for special military service.

The Aerial Mail Service between Washington and New York shows for September the record of not a single failure in flight, and interruption in but three flights. The Chief Clerk of the Department has made the suggestion to the various Bureaus in Washington that they consider the aerial service in lieu of telegraph or ordinary mail. The postage rate is 16 cents for the first ounce which includes special delivery service.

It's now Captain L. A. Whitsit of the Engineers with detail to the Powe Section of the War Industries Board. There surely must have been urgent need fo Captain Whitsit's services in the Engineers, since the offer of the commission was dispatched by telegram from the Engineers situated about three blocks distant, wi request for reply by the same means.

R. S. Kellogg dropped in last week to find out from the Forest Servic what had happened to the report on pulpwood statistics. We had to tell him tha the report was with the G. P. O.

R. K. Helphenstine, Jr., is on his way to Madison for a month's stay. Preparatory to this long trip Mr. Helphenstine made a one-day's run to Philadel for a conference with officials of the Emergency Fleet Corporation. Future cooperation with the Forest Service on treenail production and inspection was under consideration. Peter Keplinger, just recently transferred to the Washington Office, also participated in the conference and has remained in Philadelphia to carry out the cooperative work agreed on.

Madison Laboratory

Property Auditor J. G. Falck is now very happy. He spent a month at the Laboratory, checked up all the property and installed a system for handling property.

O. M. Wold is now in charge of the fiscal work having recently arrived from Missoula.

The relative resistance of ten airplane woods to splintering when struc by bullets from an army rifle has been recently tested. An examination of the various woods after the tests indicates a possible division into two groups, Group I embracing species that showed little or no tendency to split where the rifle bullet passed through the panel, the splinters formed being short and fibrous, and Group II embracing species which showed a decided tendency to split and splinter into long slivers, especially where two bullets struck close together. The following species experimented with fall into Group I: Tanguile, yellow birch, prima vera, white pine, African mahogany, Central American mahogany; Group II contains black walnut, Sitka spruce, white oak, and white ash.

A shipbuilder manual is in the making. This compilation will aim to bring into one volume all available information about wood that is of vital interest to the shipbuilder.

The largest number of specimens ever submitted for identification in a single month were received during September. Over 3,000 woods were identified. Of these 390 were identified as to genera, 178 as to group, and 2,400 as to exact species.

District 3

An erosion problem from a new and rather unusual source now threatens on the northern part of the Flagstaff District on the Coconino Forest. For the past two years permittees have been active in attempting to build stock tanks to meet the water shortage which so far has prevented adequate utilization of thousands of acres of excellent forage. In an effort to get water into these tanks extensive ditching has been resorted to. In one case investigated by Ranger McKenzie it was found that between nine and ten miles of ditching, averaging in width 30 inches and in depth 10 inches, had been constructed to bring water into one tank. In some places where a rather steep grade had been secured these ditches had already eroded to a depth of five feet. It is reported that the ditches to another tank will total 20 miles in length. In order to hold this propositio within bounds no further ditching is to be allowed without express approval of th Forest Service, which will be given only with such regard for territorial and other limits as it is hoped will safeguard against range monopoly and undue erosion.

(Editor's Note: If at all possible, please take a series of photographs showing this condition. Such photographs will be of value for the photograph collection in Washington.)

District 5

The Laguna recreation area on the Cleveland Forest has been a popular cooling off place for the people of the Imperial Valley. In spite of the present war conditions which cut down the number of campers, there has yet been a considerable increase in numbers.

District 6

Forest Examiner Ken Smith has returned from Alaska, where he spent the field season on the Tongass, seeking out Sitka spruce which might be suitable for airplane construction.

Forest Examiner W. B. Osborne, Jr., leaves Portland Saturday for the Field Artillery Officers' Training Camp, Louisville, Kentucky.

Sixty-four pairs of socks and five sweaters, knit by the women of the Forest Service, were shipped to the Washington office today by Mrs. Whiting, for use by men in the additional battalions of the Forest Regiments.

The Forest Service is planning to cooperate with the county commissioners and private owners in the construction of a dam across a flood channel of the Quinault River for the protection of the Norwood Ranger Station on the Olympic, the county road, and the property of settlers on the valley.

Plans are under way to repair the timber towers on the Rogue River suspension bridge, six and one-half miles below Almeda, Oregon, on the Siskiyou. This bridge was built in 1909. The lower timbers,--cribbing and sills,--are beginning to go bad after nine years' service. It will be necessary to lift the bridge in order to put the new towers in position, rather a difficult proposition, as the bridge has a span of 180 feet.

Forest Examiners E. J. Hanzlik and G. A. Bright have discontinued field work in the spruce region on the Olympic and the field notes are now being written up.

Walter H. Graves is gathering data under the direction of the U. S. Reclamation Service for a report to the Secretary of the Interior on the suitability and availability of logged-off lands in the Pacific Northwest for returned soldiers, under federal colonization projects. Mr. Graves recently called at the District Office to see what assistance this office could give him in supplying data for his report and the information requested is now being compiled.

With deep regret announcement is made of the death of E. G. Snell, Assistant Engineer in Forest Products, Seattle Laboratory, at Seattle, October 11.

Forester Examiner Jaenicke has returned to Portland from a five-weeks' trip to California, where he assisted in making a cooperative check of the results of the 1918 yellow pine and sugar pine insect-control project on the Sequoia National Forest. The Bureau of Entomology and the Forest Service are cooperating in this project to determine the efficacy of the percentage principle and the necessity of continuing work over more than one year on the same infestation. Reliable conclusions are not yet available. Other areas also were studied to determine their desirability as future investigative control projects. Besides Mr. Jaenicke, J. M. Miller, of the Bureau of Entomology, and Forest Examiner Hopping, of District Five, took part in this work.

Forest Examiner Asher Ireland has returned from Alaska, where he spent the field season in land classification work.

WEEKLY BULLETIN

Forest Service -- Washington Office

(Not for publication)

November 4, 1918.

Lumberjacks, Coins, and Ancient History

Heretofore all the financial news received from the forestry regiment in France has dealt with the speed of the lumberjacks in getting rid of their pay and the amount of coin they were dumping in France. At last they are getting some of it back, but they had to dig into Ancient History for it. In a recent letter from the land of Nannette and Rintintin, Major A. S. Peck sends the following news:

"On one of our operations they were digging a well and unearthed an old Roman ruin of some kind. Found about 2,000 coins with the head of Augustus Caesar on them and his name. The boys in that district now take a tremendous interest in Ancient History."

The 2,000 coins are no doubt just the kind of luck to be expected from an acquaintance with Nannette and Rintintin, but the interest in Ancient History is something entirely different. However, if this piece of luck can stir up a thirst for knowledge in the mind of the lumberjack it is the best kind of luck. The lumberjack has never been found at the rear when energy, ingenuity, and courage were to the fore; but his inclination has not led him to spend his spare hours in the library--and indeed his opportunities have usually been as small as his inclination.

The most fruitful education in the world is that which comes out of a natural interest awakened by some event or condition in a man's life. How much advantage do we all take of the opportunities that come to us to encourage and help such an interest in the man who works with or under us? The difference between progress or retrogression in a nation, a community, or an organization like the Forest Service often lies in the answer to that question. Furthermore, one of the greatest pleasures in life is helping some fellow worker to a broader and surer knowledge. To hoard knowledge, technical or any other kind; to let pass an opportunity to increase the efficiency, usefulness, and the capacity of an associate just because it means spending time or pains or some of our own stock of knowledge, is to be a miser and make the world poorer by so much of the coin of knowledge as we hide away.

On the Front in the Northwest

"Recently, two young men of draft age, representing themselves to be brothers and posing as mining men, appeared in the Upper Skagit region of the Washington Forest. They were armed, well clothed, but without food, a deficiency which was supplied by raids on a ranch and Ranger Station along the trail. The suspicions of Ranger Thompson being aroused, he reported matters to the Supervisor and was instructed to arrest the visitors.

"After a forced ride of 30 miles, in company with Guard Berry, the men were located at nine o'clock in the evening slumbering in one of our camping shelters. The sleepers were aroused by the noise of the horses' hoofs on the rocks, and as their guns were at hand, the Forest officers passed on. Next morning, reinforced by three prospectors, the party awaited the arrival of the "mining men" at a convenient point farther up the trail. One of them resisted arrest and it was necessary to take his gun from him, but the other threw up his hands with great celerity.

"As surmised, these Forest visitors turned out to be deserters from the military service, and in their effects was found a crude map of the region, showing places where food was likely to be found. They had been posted in advance and expected to assemble food in some isolated place where they could hide until search was abandoned. It is safe to say that watchful Forest officers throughout the country have made the waste places "no man's land" for those who seek to escape military service."

R. C. CAMPBELL.

With the Boys at Camp Humphreys

Once again the sun is shining at Camp Humphreys! That is to say, the clouds of sorrow and sickness are breaking and once more the faces of our brave lads are merry with the sunshine of life.

They were such a patient lot of sick boys, so full of pluck, so willing and anxious to help the doctors and nurses who were trying to bring them back to health and strength. I do not now wonder--if, in fact, I ever did--that "over there" the Yankee smile is like a wonderful hymn of triumph, and the Yankee pluck is the two-edged sword that is cleaving the way to Berlin.

There have been some terribly dark days here in Camp Humphreys, and many of our beloved lads have slipped over the edge out into the Great Beyond. I have been beside their beds, close to them, and always their last conscious act was a pressure of the hand; their last conscious look, a smile--a sort of tacit message to mother, wherever she may be, that everything was "all right."

Everything is all right now at Humphreys. One of the pleasant events was a gift of fruits for the hospital brought down by members of the Forest Service and greatly enjoyed by the sick boys, also a number of sweaters from the Forest Service Branch of the Red Cross which have made happy a dozen boys who greatly needed them. We, of the Forest Service, are very proud of it and feel it a privilege to serve under that patriotic branch of the Government.

STELLA W. CARMODY.

Forest Service Uniforms

The wearing of uniforms is considered desirable, and Forest officers should supply themselves as soon as practicable, according to a recent letter from the Forester. Those at present without uniforms but possessing other presentable clothes suitable for their needs may defer the purchase until later. The important thing is to bear in mind the getting of a uniform at an early date.

All Forest officers who are under permanent appointment and are customarily employed in field and office work, as distinguished from purely office work, should wear the uniform while engaged in field work within or adjacent to the National Forests. At the option of the individual, the uniform may be worn while on field duty away from the National Forests or while on office duty. In the smaller cities and towns within or adjacent to the National Forests, this practice is desirable.

In addition, it is planned to adopt a work uniform for use in fire fighting, scaling, and while engaged in improvement and construction work. Final decision on this has not been made and the committee is still open to suggestions.

A Uniform Worth While

The following story from a current publication is sent in by Supervisor Jeffers of the Arapaho with comment. 'It is very opportune in connection with the consideration being given the new Forest Service uniform at the present time. The man telling the story wore the Red Triangle of the Y.M.C.A.:

"'Good morning, Sir; that uniform looks good to me.' I was thus accosted by a stranger at Forty-Fifth Street and Madison Avenue. Without asking my name, where I was from, who my parents were or my attitude on the war, he continued: 'Say! I am a bank messenger; I've got $48,000 in currency in my pockets. I am afraid some "dips" may have me spotted. Won't you please take this roll and walk by my side to the bank over on Fifth Avenue?'

"I felt like an ammunition manufacturer with a government contract as I walked along to the bank with that $48,000 adorning my person, but the larger thought which forced itself upon me as the man thanked me at the bank was: This could not have been done five years ago. A New York bank messenger, naturally suspicious of the whole world, handing a stranger such a sum of money without even asking his name can only be an illustration of the prestige of the Red Triangle: an emblem recognized today to the ends of the earth as standing for an unqualified, uncompromising Christlike service to man.

"After going to my hotel and brushing up that uniform a little more carefully than usual, I wondered if any other uniform would in this critical and commercial time have been so recognized--and trusted."

We are proud of the Forest Service and its record. There is something about it which draws and holds a large number of men sometimes at a sacrifice of money. The work, the spirit, and the association are our compensation. Why not a uniform of which the Service, individually and collectively, may be proud? Why not a uniform which will stand for the work, the association, and the men of which we are so proud? Why not service stripes indicating that a man is proud of his time in the Service? It seems to me that a Forest Service uniform may be proudly worn by every man in the Service. It ought to be an asset. Make it distinctive; Copy-right it if you please.

The public would soon distinguish the Service men from Boy Scouts, tourists, Y.M.C.A. workers, and messenger boys.

Service men are trusted many times just as are the Y.M.C.A. workers. Their advice is sought in many lines by individuals of a locality where they live. Service men are sought as leaders in a wide range of activities. Why not let a uniform stand for all this?

Western Yellow Pine not Needed for Airplane Stock

The unsuitability of western yellow pine for airplane stock was indicated in a recent communication from the Forester, which was published by the Lumber World Review. Colonel Graves had the following to say in regard to this:

"The technical qualities of wood needed for airplane construction are a combination of strength, lightness, stiffness, and shock-resisting qualities. Spruce possesses the properties necessary in airplane woods to a high degree.

"The Forest Service has investigated the suitability of western yellow pine, and has decided that it is desirable to avoid its use as a substitution for spruce. It is inferior, in quality, and is not as suitable as Sitka spruce, red spruce, white spruce, Port Orford cedar, Douglas fir, eastern white pine, western white pine, and yellow poplar. Norway pine, noble fir, grand fir, amabilis fir and western hemlock are also superior to western yellow pine. Western yellow pine is very brash and quite variable. It twists, warps and checks more than any of the above species, and is lower in stiffness than the species named. Low stiffness and frequent occurrence of brash material are its most serious defects as an airplane wood. Shock resistance is lacking in brash material. The attempt to use yellow pine would result in the rejection of a large portion of the production."

Walnut in Delaware

Considerable reluctance about selling walnut trees has developed on the part of farmers in the vicinity of Newark, Del. This condition is not through any lack of patriotism on the part of the farmers. It is occasioned by the dishonest methods used by a buyer for a nearby operator. The timber buyer purchased walnut timber at his own price, claiming that it was being commandeered by the Government. These shady performances became generally known and in consequence the farmers are holding on to their walnut trees. Steps have now been taken to explain the situation to the farmers and above all to have a reputable buyer assigned to this region.

Walnut Study in Kentucky

Huber C. Hilton has just been giving Kentucky the once-over in the interests of walnut production in cooperation with State Forester Barton.

Kentucky has been well covered by walnut buyers in the past, particularly in the central section of the State. It is estimated that not more than thirty million feet of walnut are available at present. The best and most accessible has, of course, been cut in the operations of the past.

Walnut in Missouri

Locating walnut in Missouri has its interesting phases, according to reports received from Frederick Dunlap, who is looking after walnut production in Missouri and Illinois.

Mr. Dunlap finds inefficient mill manufacture, stubborn operators beyond reach of suggestion, poorly arranged mills, unreliable operators without standing in the community on account of past shady dealings, dissatisfied owners of walnut who feel that they have been balked by salesmen, and many other conditions all tending to interfere with the production of gunstock material in a manner desirable under present needs.

To remedy this Mr. Dunlap has found it necessary to get reliable purchasers into territory previously covered by irresponsible men, to persuade efficient operators to take up the manufacture of gunstocks, and to persuade owners of walnut to be willing to sell under the new order of things.

Walnut in Texas

Juglans twisteritas is the name suggested for Texas walnut by an operator with whom the Forest Service has been in communication. The correspondent states that he has been in the walnut game for thirty years and in this connection has covered the country generally. According to him Texas walnut is of a twisting and distorted growth, inclined to wind shakes and defects. In most of his Texas production of recent years logs 22 inches and over have been sent to the Huns who used the material for veneers. Texas walnut is apparently not suitable from standpoint of quality or texture.

Black Walnut as a Memorial Tree

Congress is to be memorialized for the purpose of obtaining an appropriation to be expended by the National Forest Reserve Commission and the Forest Service to establish plantations of black walnut, according to resolutions adopted by the various women's organizations in Michigan.

The President is to be requested to designate after the declaration of peace a special day on which each community should plant a black walnut. Black walnut is selected on account of the important part it is playing in the war and on account of its general high value commercially.

War History

Captain F. H. Fowler, at present on detail in Washington, is engaged in getting together all material bearing on the organization of the Tenth and Twentieth Engineers. The pictorial end is not being overlooked and to this the Forest Service has contributed a large number of photographs taken of the regiments while stationed at the American University grounds in Washington.

Mailing List for the Bulletin

An up-to-date mailing list is absolutely necessary in order that there be no delay in delivery of the Weekly Bulletin nor failure on the part of the former Forest Service employees in military service to get the Bulletin.

Field officers are therefore requested to send addresses at once when Forest officers leave for military service. In checking up the list it has been found that this has not been done with the promptness desirable.

Suggestion is also made that men in military service keep the editor informed as to any changes of address.

An Explanation from the Editor

From time to time criticism is made by field officers of the length of the paper used in printing the Bulletin, and that difficulty is experienced in filing without folding. The use of the long paper is absolutely necessary to overcome the mechanical difficulties at this end. Time and labor are short and by the use of the long sheet there is considerable saving in the number of sheets to be handled.

Washington Notes

The skip-stop system for street railways shows an estimated saving in coal or its power equivalent of 687,122 tons, according to the U. S. Fuel Administration. Some members of the Washington Office feel that a very large share of this saving was done locally at their expense; for many of the cars have developed a no-stop operation, forcing these would-be passengers to unlooked-for walks to office or extended waits for a car.

W. B. Barrows has returned and is again in charge of the Section of Computing. Mr. Barrows appears to have lost at least twenty-five pounds in weight and as his first job will probably apply the slide rule to find the answer.

G. G. Anderson has completed the round of the Western Districts and returned to town. He reports that he had a pleasant journey and that the time spent on the train was put to good purpose in keeping tab on the exploits of Jack Keefe.

District 1

S. B. Show, as surviving representative of District 5's research and planting force, is in District 1 making an investigation of planting work.

It is now Captain R. J. Smith, of the 23rd Machine Gun Battalion, Camp Fremont, Calif. Captain Smith attended the second Officers' Training Camp at the Presidio, where he received a commission as first lieutenant. Captain Smith was formerly on various Forests in this District.

District 2

National Forest Examiner, John McLaren, has returned from the Minnesota Fire District and reports that the "Great Minnesota Fire" was one of the most destructive conflagrations, from the standpoint of life and property, that has ever taken place in the United States, far surpassing even the Hinckley fire of 1894.

With deep regret announcement is made of the death from Spanish influenza of Forest Examiner Allen W. Murdock, of the Arapaho Forest, on October 27, and Jerry F. Twombey, formerly Ranger on the Colorado Forest, on October 17.

Warden Tom Tynan, of the State Penitentiary, and Democratic candidate for Governor of Colorado, has recommended to the Government that convict labor be used in the building of trails and range improvements and for eradicating poisonous plants from cattle and sheep ranges. Convicts have hitherto been used extensively for road building and some of the finest auto highways in Colorado are the work of men from the Canon City Penitentiary.

J. O. Kinsley, of the Bureau of Public Roads, in charge of the Durango-Silverton Road Project, died of Spanish influenza in the Durango Hospital on October 20. Influenza also broke out in the road camp and the 115 laborers employed by the Government, half of whom were Navajo Indians from New Mexico, "flew the country," leaving only four white men on the job. On account of the lateness of the season, a new camp will probably not be opened upon this project.

An experimental sowing of a quantity of wild rice received from the Michigan Forest was made last week on the Pike Forest in the ponds near the Mt. Evans and Beaver Meadow Camp sites. Summer visitors have it to their credit that everything about the rest-cabin and shelters, built by the Service at these two camping grounds, was left in excellent condition.

Deputy Supervisor Carl M. Stanley, of the Pike National Forest, joined the Field Signal Corps of the regular army and left for Camp Alfred Vail, Little Silver, N. J., on November 2.

The road crew on the Rabbit Ears Project has been cut to 17 men; but it is planned to keep the camp going, if weather conditions permit, until the middle of November. Work will probably be completed as far as the Branton Hill Saddle. This will allow of travel over the new road constructed this year.

Assistant District Forester Hatton and Supervisors French and Blair from Glenwood Springs were "snowed out of the Flat Tops" on the White River Forest on October 21 while on a range inspection trip. The storm caused the pack animals to "beat it for home" so that it was necessary to pack the saddle horses and walk back to town. The officers footed the 25 miles to Glenwood Springs through a raging blizzard and over a trail which in one place drops 4,000 feet in four miles.

Mr. Hatton claims he slid the greater part of these four miles on his back and after this strenuous trip is prepared to attempt successfully any army marching test. Supervisor French, who wrapped his feet in gunny sacks, (two sacks to each foot) to keep out the snow, is said to have left tracks which were later mistaken by hunters for those of a giant silver tip.

District 3

An excellent oats crop averaging about 75 bushels per acre is reported on the Coconino Forest.

Stanley F. Wilson, formerly Ranger on the Coronado, is Captain in the 19th Field Artillery, A. E. F., and is personnel officer on the Regimental staff.

District 5

Chronological history of Thomas's fire trespass case on the Sequoia:

Sept. 22, 3:30 P.M.--W. L. Thomas, of Earlimart, left Shake Camp without extinguishing camp fire.
4:30 P.M.--Unextinguished camp fire found by Adams and Arnold and made safe by them.
5:00 P.M.--Circumstances reported to Forest Guard R. Arnold.
5:30 P.M.--Guard Arnold notified Supervisor's office by phone. Lyons left in "jitney," picked up Arnold and went to scene of fire.
6:00 P.M.--Lyons and Arnold completed putting fire out.
8:00 P.M.--Lyons returned to headquarters and arranged to take visiting Justice of the Peace to Ducor next morning.
Sept. 23, 8:15 A.M.--Lyons leaves headquarters with Justice for Ducor.
10:00 A.M.--Complaint made out and warrant secured. Journey continued to Earlimart.
10:45 A.M.--Thomas arrested at his home, near Earlimart.
11:30 A.M.--Party arrives at Ducor.
11:45 A.M.--Thomas pleads guilty and is fined fifty bucks. Case closed.

What Forest needs a lookout? The following application has been received:

"Dear Mr. Hammatt: Having seen in one of our local papers where women will be used for the Forest Service as lookouts, I wish to ask for a position as such, as I have lived an outdoor life, and I have never been afraid of wild beasts, having toured the country with some of the leading circuses. I like the West and long to get back. Can you place me?"

District 6

At midnight on October 1 Lookoutman X. Wade, of Observation Peak on the Olympic, discovered a fire in Wind River Valley. Unable to arouse anyone in the vicinity by telephone, Mr. Wade reported the fire to Ranger Colter at Spirit Lake, who by means of the special loud-sounding howler signaling set was able to call up Ranger Cline at Hemlock Ranger Station. He in turn called up the Wind River Logging Camp and notified the foreman of the fire. The logging crew hastened to the scene of the fire by automobile and logging train and had it under control by four o'clock in the morning, when the Company superintendent arrived on the scene from Stevenson, 17 miles away. The fire burned over about 5 acres and threatened a donkey engine and equipment worth several thousand dollars, besides valuable timber. The fire started from the donkey engine some time after the men had left it, at seven o'clock the preceding evening. The value of taking night observations from lookout points is emphasized by this incident.

Kan Smith left Portland this week for Seattle to enter the Student Army Training Camp at the University of Washington.

The Boy Scout headquarters cabin at Wahtum Lake, on the Oregon, is nearing completion. The cabin is 50 by 100 feet, built of silver-fir logs. Water has been piped in from Simmons Spring, at the base of Mount Chinidere. The cabin will be occupied as a summer camp by the Boy Scouts of Portland and vicinity. The location is ideal for this purpose, being accessible by both Herman Creek and Eagle Creek trails and lying in a region well adapted to boys' outdoor sports. The opportunity offered for the boys to become familiar with Forest Service methods of fire protection and other Forest activities will undoubtedly arouse their interest in the protection and proper use of forests.

The Bureau of Entomology is attempting to locate a considerable number of the large lady-bug colonies which occur every fall at the high elevations. Assistance for this purpose is being given by the various State and County agents and the Forest Service. The lady bugs will then be collected and next season be turned loose in wheat fields which are infested by the aphids. During 1918 the damage to wheat in Oregon and Washington by the aphids was enormous, and it is planned to prevent a repetition of it in 1919 by distributing these ravenous aphid-eaters wherever they are most needed.

Logging Engineer Nelson has concluded the appraisal of the Blowout Creek watershed, on the Santiam, covering 200 million feet of timber, chiefly Douglas fir. Two applications have been received for this timber.

Thomas P. MacKenzie, Commissioner of Grazing from Victoria, B. C., called on his friends in the District Office this week. He reports that he is getting good cooperation from the stockmen of British Columbia in his new work and has already succeeded in organizing seven stockmen's associations.

M. E. Fagan, Chief of the Office of Accounts, Washington, and A. H. Cousins, Property Assistant, Ogden, were visitors at the District Office this week.

The scenic trail from Eagle Creek Camp Grounds to Wahtum Lake, on the Oregon, was completed this month after being under construction for three seasons. This trail is about fifteen miles long and opens a region of unusual scenic attraction to the tourist.

District 7

With deep regret announcement is made of the death of Charles N. Hammond, Deputy Supervisor, and of John E. Blalock, Forest Ranger, on the Arkansas Forest. Mr. Hammond had just recently been transferred to the Arkansas from the Santa Fe Forest, where he had been in charge of timber-sale work on the Panchuela district. His death was caused by pneumonia following an attack of influenza. Mr. Blalock was in charge of the Poteau district. His death followed a brief illness with typhoid fever.

Forest Examiner E. P. Bushnell, in charge of the Unaka Forest until the recent consolidation with the White Top Forest and more recently assigned to timber-sale work on these consolidated Forests, has resigned to go with the American Wood Production Company.

Forest Examiner Noyes, who for some years has been engaged on Acquisition work in the South, has resigned and proposes to get out chestnut extract wood to satisfy the war demands.

What to do with six buffalo is just now the big problem agitating the District. About two years ago Mr. Corbin of New Hampshire presented six buffalo for placing in the Pisgah Forest and Game Preserve. The world war and freight congestion made this impossible at the time. Conditions have so far been adjusted as to make possible the shipment this winter, but other complications have arisen.

The elk now in the pasture brought with them from Wyoming an assortment of ticks. It is not known whether the ticks will be harmful to the buffalo. In order that no chances be taken, one-half of the pasture is unoccupied in the hope of starving the ticks to death.

If possible the best solution seems to be to keep the buffalo in New Hampshire another winter, at the expense of the Service provided Mr. Corbin is willing to bother with the buffalo that much longer.

The one and only antelope in the Wichita Game Preserve is lonely and the request is made by the District that some of its western friends (the District Forester's friends) send some companions.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

November 11, 1918.

"Talks from the Forester's Office"

A new feature of the Weekly Bulletin has been proposed by Colonel Graves. He wishes to inaugurate a series of "talks from the Forester's Office," for the benefit of all of us. In them it is his purpose to give the members of the Service his confidence by discussing in a somewhat familiar way, as he might do if he were talking with us individually, what is in his mind regarding certain questions of Service policy or administrative problems.

These "talks" are strictly for the members of the Service--as indeed is the entire Bulletin. It can not be too much emphasized that the Bulletin should always be regarded by its readers as something among ourselves. It should not be handed around outside the family. If it had to be edited with the idea of its having to pass the scrutiny of strangers an element of constraint and a sense of formality would be involved which could not but have an unfortunate effect on the make-up. Not that the Bulletin is going to whisper secrets that we are afraid to have anyone outside the family overhear--but we don't want to be bothered with unnecessary responsibilities. The Bulletin is our own affair, and we all wish to keep it so.

It is our privilege as we read what follows to understand that the Forester is using the Bulletin as a vehicle for conveying a personal communication to each one of us--but particularly to the men on the Forests, with whom he can too seldom come face to face.

OUR GAME POLICY

The Forest Service has a very definite responsibility and duty in connection with wild life. To have it abundant is of direct material advantage to the country and to local communities. Forests are the natural home of much of our wild life, and the National Forests will be its greatest permanent refuge. Its conservation is of growing importance. Now that we have met the still larger and formerly more pressing problems connected with securing the permanent tenure in public ownership of the National Forest lands, and with organizing their successful protection and use, we are freer to turn our attention upon our responsibility in the handling of their wild life resource. It is time that we had a clear objective.

We should recognize the place of wild life in the whole undertaking of national forestry. I want to emphasize at the outset that to conserve and develop wild life in its proper relation to other resources is a very definite duty of our organization. While the Forest Service has already achieved a great deal in the way of wild life conservation, there has not been a sufficiently clear-cut, carefully worked-out policy. Wild life has a direct and economic value, which can be measured in money terms; but it has a further public value which can not be so measured and expressed. It is comparable with many of the indirect advantages of forests, mountains, and parks. The nation is richer for such things. The people will be increasingly insistent upon their value and will more and more frown upon those who have contributed to the impairment of the value of the wild life resource. The first step in the formulation of our policy must be full recognition of these facts.

Some people take the view that if the development of material resources and the conservation of game conflict, the former must give way. There is a conflict between certain classes of game and domestic stock. There are extreme views on both sides. Some game enthusiasts regret the transformation of the wilderness into modern communities through the development of farms and stock raising. The best of our sportsmen, I am glad to say, do not hold such unreasonable views;

There are also extremists who would be quite indifferent to the complete disappearance of game wherever it conflicts with the use of land by domestic stock. In point of fact we must recognize that there is a proper place for wild life. In many cases this will require some restriction of grazing or other uses. Our problem is to determine in each case just what the proper place of wild life is in the whole forest economy.

It used to be assumed that somehow or other Nature would keep up the supply of game. That day is gone. Without intelligent provision for its perpetuation, the factors working against game will destroy it. The National Forests will not remain wilderness. We are doing our best to bring more people into them and to develop them in every possible way. Not only is it impossible to leave the game to take care of itself; its perpetuation necessitates something more than pure protection.

This is where the new idea of game administration comes in. Our chief efforts in the past have been along the line of cooperation with State authorities in enforcing the State laws. These laws have been the key to the situation, so far as our activities were concerned. The State laws are based solely on the idea of protection, and usually do not go beyond limits on seasons and on the bag. Much more than this is required. We must work out principles of intelligent game administration, as we have done in the case of livestock grazing. We should determine what are the possibilities of each Forest for the development of the wild life resource. We must gain a sufficient background for determining what provision must be made for the perpetuation of the present game, for its increase, and perhaps for the introduction of new kinds.

Ordinarily the administrative problem is first of all one of feed. This will raise the question of the extent to which grazing will have to be restricted to provide both summer and winter forage for the amount of game which, all things considered, it is proper for a Forest to carry. It is by no means a simple question; but it is one entirely within our own jurisdiction. When we come to the next problem, we encounter a different kind of trouble.

This is the problem of the restrictions upon hunting which good game administration may require, beyond those practicable under the State laws. For example, game refuges where no hunting is allowed may be required. The Government has not authority to establish them. Or the State law may be such that a certain class of game is undergoing rapid local depletion. Still again, the efforts of forest officers to enforce the State law may not be successful for lack of support by State authorities.

It is believed that in the long run we can meet all of these difficulties. There will have to be educational work to build up an intelligent public sentiment. So far as law enforcement is concerned, the new regulation bringing certain classes of offences into the State courts should be very helpful. On the whole, I believe that by rightly directed effort, in spite of discouragements here and there, we can surmount the obstacle of jurisdiction, without seeking new legislation from Congress.

The desirability of legislation giving the Forest Service jurisdiction over game has been much discussed. The constitutionality of such a law is uncertain. Early action by Congress giving full authority to the Forest Service is altogether unlikely. I believe that we should seek to use existing State machinery to accomplish what is necessary, instead of waiting for a Federal law.

While efforts to establish Federal game refuges have consistently failed, the States have been acting. We should study the need for the prohibition of hunting on specific areas, and when convinced of the need, present them to the State legislatures through the proper channels. In the same way we should consider problems of the length and time of open season, and similar matters. I believe that if our facts justify the proposals, the State legislatures will receive our suggestions gladly and act favorably upon them.

Sometimes there will be specific administrative measures which we might feel belong to the State to undertake. The best way may be for the Forest Service itself to undertake these measures if they are within our legal authority and the State is not ready to act. I should not hesitate, for example, if we have the money, to have the Forest Service post State game preserves. We shall undoubtedly in the long run have to assume the greater part of the burden involved in carrying out the State game laws within the National Forests, even though the hunting licences bring in a very substantial return to the States.

If in the long run we can secure the results, it will be of no great concern whether the authority has been derived from the Federal Government or from the State. More and more the burden of game administration will fall upon us, under perhaps a rather complex combination of Federal and State authority. What I want now is to make certain that every Forest officer appreciates that he has a responsibility in the matter of the perpetuation of wild life. I want to see him vigorously interested in it; to see him informing himself as to the extent of wild life on the Forest; to see the rangers have an increasing amount of information regarding the habits of wild life within their districts; to see the supervisors incorporating in their grazing and administration plans provision for the development of wild life, even though for lack of money or for any other reason it may require some time before much can be accomplished. I want to see the public looking to the Forest officers as the leaders in game matters, just as they are leaders today in matters pertaining to timber and livestock.

H. S. GRAVES.

Concerning Those Christmas Boxes

The following letter from Col. W. B. Greeley to Mr. P. S. Ridsdale is self-explanatory:

"I have received your telegram, offering in the name of the 'Forestry Regiments Welfare Fund' to send Christmas packages to men in the Forestry Troops who are not otherwise provided for. Your very kind invitation has been extended to all of the men in the Forestry Regiments, with the suggestion that all of them who wish to avail themselves of it send their Christmas package labels to you. I am sure that your generosity will be very welcome to many of the men in our Forestry Regiments; and in their behalf I thank you for it."

How much of an opportunity this will open remains to be seen. All labels which may be received will be turned over to the Forest Service, in order that the boxes may be filled with as much Merry Christmas as we can get into them.

With the Foresters in France

The following excerpts are taken from a letter from Lieutenant-Colonel Greeley just received:

Tours, France,
3 October 18

Dear Colonel Graves:

The last two months have been the most strenuous yet in my service with the A. E. F. We have been expanding as fast as possible, starting several new mills with crews of labor troops and men from the auxiliary road battalions. We want to be prepared for any developments in the situation--cutting material for the French, putting troops up with the Armies to work with small mills close to the front, meeting the fuelwood problem, etc.

Eighty men from the New England sawmill units have joined us and been organized into a separate company. Three of our companies are working with the First Army, with small mills near the front. They have been under shell fire several times.

Peck is now running a special fuelwood project with several thousand Q.M. service troops, in the divisional areas and at other points as near as possible to the principal hospitals and depots. Chapman is now serving as Inspector for four of our Districts in the Advance Section and is distributing their output directly to supply the Armies at the front and the needs of the Advance Zone. Benedict has a similar position covering all of the southern districts. Benedict, Chapman, and DuBois are all to be Lieutenant Colonels. Major Kelly and Major R. C. Johnson have already received their silver leaves. Peck will soon be a Lieutenant Colonel. Barry Moore is now a Major, and I hope that Stuart, Granger, and Keifer will soon get their majorities. They have all done splendid work.

We are starting two mills now in the Plateau Central, near La Chaise Rien Col. Kelly and I are soon going over six propositions which have been lined up by Stuart and others in the Pyrenees. We have four mill sets that can probably be utilized in the Savoie country. Capt. Berry is getting a splendid list of chances ahead in the Landes. Eight months ago I would have been staggered by the task of timber for our large increase in forestry troops; but by dint of persistant searching, we are finding it. I am constantly astonished by the amount of timber in France. We have two areas in the Central and Eastern Pyrenees which I think can be used, which contain from 30 to 50 million board feet each. Now we are lining up an area in Alsace. We have rather taken the breath away from our British and French friends by our way of going after forests; but we are finding them right along.

The cut for September was 42,546,000 feet of sawn products, including 439,978 standard gauge ties. We also cut 3,653 piles, 567,225 poles, entanglement stakes, etc., and 138,000 steres of fuelwood. We got rid of the excelsior project--glory be! The latest development in Col. Johnson's Department is a box factory which we are installing at Andelot and which we had to come to to meet the demands from the Q. M. C., Medical Corps, and Ordnance. The battalion which has been working for the English comes back to us during this present month. It will open up a new district in the Landes.

There have, by the way, been exceptionally heavy and extensive forest fires in the Landes this summer. Our troops have been called out repeatedly to fight fires and have done so very effectively. Also we have come through the season with a clear record as to responsibility for starting any serious fires. But large areas of timber have been killed in other parts of the Landes and the French are fairly throwing them at us. "The Lord moves in a mysterious way His wonders to perform."

Ringland has had his heart's desire satisfied and now goes to join a sapper regiment at the front. We are all bitterly envious of him. My hardest task is to hold our men together. Five men deserted from one company and were found up in the trenches; and I get an unending stream of appeals for transfers to combat organizations. Godwin made good at the Line School for Officers and has now been advanced to the Staff School. Kelly and La Fon will be majors vice Benedict and Chapman.

It is unnecessary to tell you how stimulated we all are by the great work of our men at the front and by the sweep of Allied successes since the middle of July. The tide is running against the Hun much faster than I would have believed possible last winter.

With very sincere wishes for all the Service friends,

W. B. GREELEY.

(Editor's Note: Word has just come that Kiefer and Stuart have received their majorities.)

Nut Shells Needed for Gas Mask Carbon

The gas mask is a most important piece of equipment in modern warfare. Every soldier, stretcher bearer, ambulance driver, Red Cross nurse, and in fact every person in the war zone must have one, and must be carefully trained in its use.

The poison gas is absorbed by substances in the canister worn on the soldier's breast and connecting with the hood over his face. Nut shells and fruit pits produce the best carbon. It lasts longest and possesses the highest absorptive properties.

The following can be used: Peach, plum, apricot, prune, and olive pits, date seeds, and hickory, walnut, and butternut shells or whole nuts. The outer husks or hulls of the nuts can not be used.

Every effort should be made to collect the pits and seeds; none should be thrown away. Each community has been called on to cooperate in this, and instructions for shipping the local collections to the larger collection centers have been sent to the local Red Cross Chapters. At present the collected materials are being accumulated at 175 collection centers in the United States.

The Fire Loss in Minnesota

Detailed figures covering the fire losses in Minnesota are still lacking. It is estimated that the total damage will amount to about $25,000,000. Twelve thousand square miles of hardwood timber and some pine were burned over. The homes of 13,000 settlers and all their horses and 50 per cent of other livestock, 29 towns, highway and railroad bridges, and telegraph and telephone lines were burned.

The area burned over was land which had been cut over in recent years. The actual timber loss is reported to be less than in previous forest fires in Minnesota, but the area is greater as is also the destruction of life and property. The largest town burned was Cloquet, which was practically wiped off the map.

Western Foresters Will Meet in Portland

The annual meeting of the Western Forestry and Conservation Association will be held at Portland, Ore., on December 4. Preliminary to the main meeting there will be sessions on December 2 and 3 devoted to a discussion of matters of most interest to forest fire fighters, consisting chiefly of subjects brought up by a standardization committee composed of executives of Federal, State, and private patrol. District Forester Cecil is chairman of this committee.

Among the subjects to be discussed are the following: Fire Protection in Logging Operations; the Importance of the Patrolman's Profession; Reports--Their Value and Necessity; Practical Hints on Map Making; Cooperation with the Weather Bureau and with the Railroad Committee; Definite Camping Places along our Highways, and Improved Fire-Fighting Machinery.

December 4 will be forest industry day and will give the opportunity for general discussions the main topic being: "How can the Lumber Industry best serve the Government at this time?"

Publicity Leaflets in District 5

"Forestry and Agriculture" and "The Uncontrollable Fire" are the titles of two circulars just issued by District 5.

R. F. Hammatt, under "Forestry and Agriculture" shows that the policy of the Forest Service in its application of the principles of silviculture is to provide a wise and careful utilization of the present resources with an eye to the future. National Forests are areas for use.

Acting District Forester Headley in "The Uncontrollable Fire" shows the value of fire protection and controverts the arguments of many who believe it impossible to protect forests against fire on account of the constantly accumulating material when fires are kept out.

In 1917 the fire season was the longest and dryest for years and was a much harder fire season than the season of 1910 on account of the accumulation of seven more years of litter, brush, and seedlings. Yet, in 1917 the area burned over in California was 20 per cent less than in 1910 and there was a decrease of 81 per cent in destruction of merchantable timber.

This is a conclusive answer that protection is feasible and pays.

After the War Plans

Consideration of what legislation may be necessary after the war is covered in two prominent proposals for investigation and recommendation.

One provides for a joint Congressional committee of twelve members and the other for a Federal commission of reconstruction to consist of five members.

The subjects to be studied by the committee are the various problems affecting (1) labor; (2) capital and credit; (3) public utilities; (4) results from demobilization of our industrial and military war resources; (5) foreign trade; (6) continuance of existing industries and establishment of new industries; (7) agriculture; (8) adequate production and effective distribution of coal, gasoline, and other fuels; (9) shipping, including shipyards; (10) housing conditions and disposition of houses constructed by the Government during the war; (11) war legislation now on the statute books, with reference to its repeal, extension, or amendment; (12) all other matters arising during the change from war to peace activities.

The subjects enumerated for the commission's special study are (1) the financing, regulation, etc., of the merchant marine; (2) the development, financing, etc., of foreign trade; (3) the reorganization, financing, and readjustment of industries engaged in war work by way of reconverting them to normal production; (4) technical education and industrial research as a means of developing and strengthening industry; (5) the redistribution and employment of labor; (6) the supply, distribution, and availability of raw materials and foodstuffs; (7) the conservation and development of national resources; (8) inland transportation by rail and water; (9) communication by telephone, telegraph, and wireless; (10) the reorganization of Government departments; (11) the consolidation of such Acts and parts of Acts of Congress relating to the same subject matter but now found in various places in the Statutes; (12) and above all the appropriation of $500,000 to carry out the provisions of the resolution.

War Brevities

To relieve the print paper situation in the United States, arrangements have been made by the Shipping Board and the Railway Administration to furnish ships for the transportation of wood pulp from Gaspe, New Brunswick, to Portland, Me., for the International Paper Company. The need of wood pulp by the paper manufacturers is very great.

In England the use of straw for bedding purposes is forbidden. Oat straw in particular may be used only for feeding purposes. The occupier of an agricultural holding may not sell or part with the possession of any horse which is used or capable of being used for the cultivation of the holding, except with the authority of a license.

The U. S. Food Administration estimates that during the next year we must export 2,700,000 tons of feed grains mostly oats overseas. This is 750,000 tons more than last year and must come from our present supplies. Elimination of all feed waste and utilization of farm by-products is urged.

Following increased consumption of horseflesh as human food in England, the registration of all retail dealers in this meat and licensing of slaughteries is required. An important purpose of this order is to distinguish from the time of slaughter between horseflesh for human food and other horseflesh.

According to the British Labor Gazette, the number of women in Great Britain replacing men in industrial and commercial pursuits had reached 1,442,000 on January 1, 1918. In munitions work they constituted 36 per cent of the total working forces, in banking 24.6 per cent, in commercial occupations 16.9 per cent, in engineering firms 7.14 per cent, and in all metal trades 6 per cent. The figures represent only women directly replacing men; the total number of women employed is, of course, much greater.

Washington Notes

Capt. H. B. Oakleaf, formerly of the Portland Office of the Forest Service and now connected with the inspection department, Bureau of Aircraft Production, has recently returned from a trip to France. He stated to Colonel Graves that in connection with his work abroad he found the United States to be markedly in advance of the other countries in wood inspection work. He was emphatic in the statement that this is wholly due to the splendid fund of information about wood that has resulted from the Forest Service work at the Madison laboratory and in the field, before and during the war. This has furnished a basis for inspection work without which the wood inspection service would have been unable to handle their problems in any adequate way.

Lands has landed a representative in the new Forest battalions now being organized. Captain John D. Jones goes to Camp Forrest, Ga.

Assistant Forester Barnes has returned from an extended trip to the Shenandoah Purchase Area. Mr. Barnes reports that the extension was due to good Virginia clay and the eccentricities of his automobile.

M. E. Fagan has returned to town from a six-weeks' trip which took him to Ogden, Missoula, Portland, and San Francisco. Mr. Fagan brought with him as a souvenir a gas mask with which he decorated himself while in San Francisco. The decoration was imposed by the city regulations during the "Flu" epidemic.

Madison Laboratory

Completed experiments on a commercial scale indicate that the hemlock bark, wood free, obtained in paper mill operations, can be successfully dried and used as a source of tannin. These experiments were undertaken some six months ago, in cooperation with a group consisting of the Marathon Paper Mills Co., Rothschild, Wisconsin; the Bayley Manufacturing Co., and the Pfister & Vogel Leather Co., both of Milwaukee. In 1915, similar work was initiated by the Forest Service, but conditions at that time were not favorable to the success of the problem.

The utilization of this waste bark is particularly important in view of the probable shortage of tanning materials as a consequence of the scarcity of labor in the woods, the gradual exhaustion of hemlock trees suitable for peeling, and the high freight rates to the tanning centers.

It is hoped that a plant operating on a commercial scale will soon be converting this former waste into a valuable product, at a cost which should leave a satisfactory margin of profit for the paper mill owner.

District 2

Property Assistant A. H. Cousins was a recent visitor at the District Office collecting data on standard fire equipment, etc., used on the Rocky Mountain Forests.

District Forester Riley has been delayed in his field work in connection with the elk problem in the Teton country by the Jackson Valley quarantine against all outsiders on account of the Spanish influenza epidemic.

District Engineer R. E. Pratt has been in conference with the Minnesota State officials at St. Paul in connection with the cooperative construction of the Cass Lake-Ball Club automobile road in the Minnesota National Forest. This highway will form an important link in the "Wonderland Trail" running from Duluth to St. Vincent.

The "Flu" caused a week's shutdown of the Supervisor's office of the Arapaho Forest at Hot Sulphur Springs, Colo. The entire office force were victims of the epidemic.

Local settlers in the Huerfano region of the Wet Mountain Valley recently presented a petition requesting the addition to the San Isabel National Forest of a considerable area of public domain on which they are dependent for water and cattle range. An investigation of the proposed addition has shown that it is practically all alienated land and not suitable for the Forest Service management.

Because of the inroads Old H.C.L. is making in the pay checks of Government officers, especially when one is obliged to purchase salt meats, butter, lard, etc., of local grocers, arrangements have been made with a Denver packing and provision company to fill individual orders from Service employees in Colorado at wholesale prices. Automobile tires and accessories are also obtained at wholesale for all officers in the District by orders placed by the Denver headquarters. Many a dollar has been saved for members of the Service through this scheme.

The fire season in the Rocky Mountain district is practically over for the year, according to all reports received. During the past season damage from fire has been very nominal, and less than five thousand dollars has been spent for suppression.

District 6

District Engineer Dater is a candidate for membership in the Successful Writers' Association. He has just received two dollars a word for a literary production which was awarded the first prize in a State-wide contest for a slogan to be used in the United War Work Campaign. The slogan reads: Keep the Hut Fires burning.

Forest Examiner S. B. Show, in charge of Investigating and Planting, in California, is spending a few days in District 6. Accompanied by Mr. Kummel, he plans to visit the Wind River Nursery and Experiment Station, on the Columbia, and the Mount Hebo plantation, on the Siuslaw. Mr. Show has recently visited Districts 1 and 4.

A call for data for accurate road logs of all the important automobile roads through the National Forests of Oregon and Washington has been sent to the Supervisors by the District Office. The data will show the character and condition of the roads, the location of hotels, road houses, and ranches where accommodations can be obtained, and all repair stations and supply points.

Salting plans for the 186,000 head of cattle and 12,000 head of horses grazed on the National Forests of Oregon and Washington required 683 tons of salt. The half-ground salt is preferred. This can be purchased in carload lots and delivered at various points throughout the District at prices ranging from $19.70 to $29.90 per ton. Most of the salt used in the District comes from Salt Lake City. Stock-salting plans are especially well developed on the Mill Creek range of the Ochoco, Big Creek range of the Minam, Indian Creek range of the Whitman, and Cabin Lake range of the Deschutes. Salt troughs are distributed on the various ranges at the rate of one per section.

Every American soldier in Europe should receive a good fat Christmas letter. If a few pictures of home-town scenes are included, so much the better. A special effort is being made in this District to see that letters are written to all former members of the Service from the District who are now engaged in military work.

A telephone line 18 miles long, from Yacolt to Cougar, near the boundary of the Columbia, has been constructed in cooperation with the Washington Forest Fire Association. This line will doubtless prove very valuable in the protection of a region of great fire hazard.

The Wind River Lumber Company resumed logging operations in the Wind River Valley, on the Columbia, October 1, after being shut down since May 15. A McLean loading boom, which is a recent development in the logging game, has been installed. To facilitate river driving the Company constructed a new dam across Wind River, at Camp 8, during the summer.

Assistant District Engineer R. R. Randell, who has been a member of the District Office for the past two years, left Portland this week for Washington, D. C., to take up water-power work in the Office of the Chief Engineer of the Forest Service.

Government Mineral Springs Hotel, on the Columbia, which is operated under special use, closed October 1 after the most successful season of its history. It maintained an average of from thirty to forty guests during the summer, with as high as one hundred and ten on Sundays.

The differential, varying from 6 to 13 cents per thousand, which the mills of the Willamette Valley have been paying in addition to the Coast rate on all shipments of lumber to points east of Missoula on the Northern Pacific, Great Northern, and Milwaukee railroads, has been removed by the Interstate Commerce Commission, as the result of action taken by the Willamette Valley Lumbermen's Association. This differential has been a handicap to the lumbermen of the Willamette Valley, who had to compete with the mills from the Columbia River, Portland, and Puget Sound districts, which paid only the Coast rate. The Interstate Commerce Commission allowed the Department of Agriculture to intervene in this hearing, Assistant to the Solicitor Staley submitting a brief in the case. This decision is an important one from the standpoint of the Forest Service, as the marketing of 47½ billion feet of National Forest timber in the Willamette Valley district is affected by the reduction.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

November 18, 1918.

Correlation of Forestry and Range Management

The subject of my second "Talk from the Forester's Office" is partly suggested by certain matters that came to my notice during my inspection trips this year.

From time to time it is desirable carefully to review our work in order to check up our progress and make certain that our plans and policies are working out successfully. I have been able to follow the steady advance of our timber-sales work and silvicultural practice on the National Forests. I have followed the progressive steps in the development of range management. Each line of work has been greatly advanced by our research work. The two branches of work have their individual problems. They have also some common problems.

We should never forget that the primary purposes of establishing the National Forests were forestry and watershed protection. These have also been recognized as the primary objects of the Forests in making our boundary revisions. But the grazing business on many of the Forests has developed more rapidly than timber sales. Before the Forests were established the land was in many cases heavily grazed. It is one of the greatest achievements of the Service that in face of great opposition it was able to introduce a system of range management which brought order out of chaos, saved the ranges as well as the forests, and in recent years has been bringing into practice new principles of handling stock and developing the ranges themselves. All of the available forage is in demand, and on a large part of the ranges the demand exceeds the supply.

The timber-sale business is more localized. There are still Forests on which immediate business connected with the cutting and disposition of timber is relatively small, while the pressure of business connected with range administration causes the grazing problems at present to dominate those of silviculture.

It may be some time before there is sufficient demand for timber to cause any change in the relative position of the current business of the two lines of work. Nevertheless, one should not forget in the range administration that we are dealing with the forest and not simply with publicly owned range. In determining the range conditions we should have in mind not only the condition of the forage but also that of the forest reproduction. We have a number of Forests which we know are today overstocked. Not only is this preventing improvement of the range, even if there is not a progressive deterioration of it, but it is preventing renewal of the forest growth. How serious this effect has been I do not believe has been fully appreciated, even though the number of such Forests is very limited.

The pressure for new range, the enthusiasm of Forest officers in increasing the number of stock on the Forests, and particularly the war pressure for increasing the meat supply of the country (all of which is splendid) have perhaps intensified the situation which I have in mind. In some instances stock have been placed on lands which I believe should be fully devoted to growing forests. A local study of this situation has resulted in a broad program in District 1 of designating certain classes of land, especially adapted to growing white pine and other species, from which sheep will be entirely excluded.

Frequently Forest officers have entirely overlooked the problem of game conservation and have planned to utilize all of the available forage for domestic stock. Still again, there have been suggestions that some land capable of producing trees should be burned over and converted into pasturage. Under such circumstances it is well for the Forest officer to bear in mind that the primary purpos of the Forests are forestry and watershed protection, and that while grazing is on of our most important activities the necessity for its correlation with other activities must not be overlooked, and that it must give way to forestry when there is a conflict. And by forestry I do not mean merely timber production, but growing trees for all of the various purposes for which the public interests demand the existence of the forest.

It is a definite responsibility of the District Forester to see that there is an effective correlation of the silviculture and grazing activities and that this correlation is made effective by the force on the Forests. Just how this correlation shall be reached is a matter which must be worked out by the District Foresters to meet the special conditions of their several Forests. Whether the determination of the influence of grazing on reproduction is worked out through investigation by members of the Office of Silviculture or of Research or through Grazing men having special knowledge of forestry is not important, provided that those who have the responsibility of allotting stock have adequate information from a silvicultural standpoint on which to act.

H. S. GRAVES.

With a Forester in Alsace

The following extracts are from a letter recently received from Captain Ringland, which has particular interest in view of the recent changes and more extensive stay in Alsace that has been begun under the leadership of Marshal Foch:

As I think I have told you before I have several times been close behind the lines but this week it was my good fortune to go into the very front through the courtesy of a French major of the Chasseurs Alpin (Blue Devils). It so happened that I was sent to look up a location for troops but 3 kilometers (about 2 miles) from the old Alsacion border in the southern Vosges Mts. Here I met two French officers and was entertained in the chateau of one in a beautiful forested estate of about 1000 hectares (2500 acres). Immediately I exclaimed that it reminded me of the Pecos Forest in Nuevo Mexique--n'est pas? The Chateau might well be the Panchuela or I should say the Overton Price Ranger Station. So you can visualize it all including a rushing trout stream of about the size of the Panchuela. Of course, there was a lodge at the entrance and a small village where the "peasants" lived--now made up of old women and children clacking about in their wooden shoes with here and there a soldier home on leave. At about 11 o'clock I casually mentioned that I would like to stamp my foot on the sacred soil of the Fatherland--referring to that portion of Alsace-Lorraine which the French have taken from the Boches. The French officers were most willing, and so we motored over the old frontier some 12 kil. to the old Alsacion town of -------. There we had lunch in the Hotel zum Goldenen Adler, as the dinner plates informed me, but over the door this German sign had been pulled down and Hotel d'Or Angle substituted. Everywhere the hated Hun signs had been pulled down but once in a while they would overlook dinner plates and library books. It seems so queer to meet children who could talk no French, only German! Then I realized that all French had been forbidden since 1870. Even singing French in the church was "verboten"! The older people spoke a patois of German and French. I learned some very interesting political facts about Alsace but I must reserve comment for reasons which you can appreciate. After lunch Commandant D------ (the French Major) suggested that we motor 22 kil. to T-----quite a good-sized town--about 5,000 inhabitants before the war--and there see something of the Front for the Germans were holding one half of the town and the French the other. So off we went unmindful of the precaution to wear tin derbies and carry gas masks at the "alerte." For miles we went down a mountain-side road screened all the way by camouflage and then came to the French second trenches and barbed wire. Every house was but a shell and here and there along the road were fresh shell-holes. Finally, we dropped into a "canyon" and there was the town of T-----the French and German trenches and but 30 miles away across the flats the famed River Rhine! We got up on a small hill the better to observe the German positions but ½ mile below us. It was all so interesting that I did not realize it was war until Commandant D-----said "We have stood here long enough to be spotted." So we dropped into the shelter of the road and went into the town. It is all but a mass of ruins--nearly every building shot to pieces, and yet there was a handful of women and children left--the women running their little shops and the kids playing in the streets--and the place is shelled and has been for four years! I asked one woman about the shelling. She shrugged her shoulders and said "Mais oui, tout les soir"--every night commencing at about 7 o'clock. Of course, everyone beats it for a dugout then. It seemed queer to see the German signs everywhere. I recall particularly a German beer garden all shot to hell. I obtained some good pictures which will interest you some day. We heard some firing but during the whole time not a thing came within 2 miles of us for which we were truly thankful and by 7 o'clock we were 40 miles in the interior. I should have mentioned that in this particular sector the French have all the advantage of the topography--i.e., of the hills and mountains that flank the Rhine in this region and so our view was uninterrupted. But the Boche has to suspend observation balloons--one big fat sausage was near us. But all of this sector is quiet compared to the other fronts.

This week after a few days leave--my first--I am to go up to the real front--the scene of the recent American success and there join quite a famous regiment of pioneer engineers. So my next letter should have some kick to it.

Conditions in the Lumber Industry

The signing of the armistice has already affected the lumber industry. Contracts for airplane material have been canceled by the Navy and by the British Mission. The Vancouver cut-up plant has shut down. Contracts for ship timbers are also being restricted, although it is doubtful if the wooden ship building program will be entirely abandoned.

Lumbermen from the various sections met in Washington on November 12, at the request of the Lumber Director of the War Industries Board, to discuss the action that should be taken for continuance of Government control over the lumber industry. The War Industries Board is consulting with all industries in order to formulate a common policy to be pursued during the reconstruction period.

While the lumbermen who were present at the Washington meeting were not authorized to commit the operators in their regions to any definite policy, the sense of the meeting was that it was doubtful if the industry would favor the continuance of any Government regulation.

Restrictions on building will be modified in the immediate future, according to announcements made, so as to allow without permit all rural construction and urban construction up to a cost of $10,000. Urban construction up to a cost of $25,000 will be allowed on permits issued by the State Councils of Defense without reference to Washington. This will relieve the building situation to a marked extent.

The Priorities Section of the War Industries Board is expected to make some modification of the traffic regulations at an early date, although no definite announcement as to the character of these changes is at present available.

The future of the lumber industry during the reconstruction period is in doubt. Some feel that prices will remain at a satisfactory level, while others expect a decided slump in the market during the next few months.

There are evidences that buyers may hold off for a break in the market which can easily be brought about unless some stabilizing influences can be brought to bear. The lack of a cooperative spirit among the various lumber producing sections will tend to create unstable conditions which will be reflected in exceedingly strong competition. This is fraught with danger to the Nation, since it will delay the reconstruction program both here and abroad and will hamper the reentrance of war workers into the building trades.

The much advertised "side-cut" problem of the West Coast now retires into the background. The investigations of the Forest Service show that large accumulations have, with few exceptions, not existed at any of the plants manufacturing airplane and ship timbers. Statistics of lumber production and shipments and stocks on hand submitted by West Coast operators show that so far as stocks are concerned conditions during the last few months have not been abnormal. There has been less business on the books than is usual at this time of year, and this has been the chief disquieting factor. The West Coast mills are largely "order" mills and an absence of orders on the books has created a feeling of unrest among the operators.

Mansions in Galicia

Peasants in Galicia must live in mansions, according to the estimated cost of rebuilding the buildings destroyed by the three Russian invasions which overran the country. It is estimated that 68,867 buildings were destroyed. This does not include buildings in industrial centers or in bigger towns, but has reference to the buildings of peasants constructed of wood and clay. According to the American Lumberman the cost of timber alone will amount to $500,000,000 under normal exchange, which means over $7,000 per building. What the total cost of these modest buildings will be raises a query.

Wounded Taught Box Making

Woodworking establishments are being created at various points back of the Italian lines for the express purposes of teaching Italian war cripples wood carving, box making, and other industries requiring the use of timber. It is said that many of the Italian soldiers show themselves to be adepts in the woodworking art, and it is the purpose of the Italian Government to encourage these propensities as much as possible and at the same time assure the establishment of an industry which will be of direct benefit to the entire population.

Austrian Pine on the Black List

Austrian pine has been put on the black list by the French foresters. A writer in "Revue des Eaux et Forets" says: "Let us banish forever the qualification - Austrian, for it does too much honor to our enemies, which should disappear from our botanical vocabulary." France wants to use a good deal of this species in reforesting devastated regions, but can not do so under its former name, although it could be done quite well with black pine as its new and appropriate name.

The U. S. Forest Service placed this same species on the black list more than five years ago, after a ton or more of the seed was imported and used in reforestation work and proved unsatisfactory for use in this country under conditions existing in the forest areas to be reforested.

Slow But Sure

The recent settlement of two cases in District 1 is a fine illustration of the results of firm, persistent action. The fires of 1910 burned over two unperfected homestead claims on the St. Joe Forest and the timber on these claims was cut by the Milwaukee Lumber Company under the provisions of one of the first "contract bonds." Unfortunately, this bond did not follow the phraseology now in use, in that no period of time was specified within which title to the land must pass to this claimant or payment be made for the timber. The claims were subsequently canceled by the Department of the Interior. The lumber company, however, refused payment and delayed proceedings in every possible way, especially in the case of the land originally claimed by Elizabeth Davis, for whose relief bills were introduced in succeeding sessions of Congress, authorizing and directing the issuance of patent. These bills have not been enacted, although twice passed by the Senate. Suits were finally instituted to collect the value of the timber cut from the Milwaukee Lumber Company as principal and the Fidelity and Deposit Company of Maryland as surety. The lumber company has now agreed to pay the full amount claimed for the timber cut on the Davis claim and has already paid the full amount for the timber cut on the other claim. The total of both cases is nearly $7,300.

The Elizabeth Davis case has been pending since February, 1915, when the claim was formally canceled by the Secretary of the Interior, and has come, in the minds of many of us, to represent the law's delays. The final settlement of it in the full amount due the United States is welcomed by all who have had to handle the case and is a hopeful sign for those who sometimes become irritated at the slowness with which Uncle Sam secures his rights.

Four Minute Men and Fire Prevention

Fire prevention was the topic assigned the Four Minute Men for the week of October 27 to November 2 inclusive. In the Bulletin containing data for the information of the speakers, material on forest fires was given under the caption, "Safeguarding Our Natural Resources."

On account of the prevalence of the influenza most meetings were called off and it is not possible to ascertain whether any extensive use was made of the fire prevention material.

Evening Classes for War Workers in Washington

It is estimated that there are about 100,000 employees in the service of the Government in Washington. In order that the time out of hours may not all be spent at the movies, the Bureau of Education is preparing to furnish evening classes. A very wide range of subjects is provided; and in order that an idea may be obtained as to the subjects in which prospective students are interested, questionnaires have been passed around.

The plan under consideration contemplates six hours of instruction per week, each class holding three sessions of two hours each, on alternate days. In addition, it is planned to arrange for free popular evening lectures dealing with a selected list of topics of current interest.

Forest Fire Protection with the Railroad Administration

Methods for the better prevention and control of forest fires caused by the railroads are under serious consideration by the U. S. Railroad Administration through the Section of Insurance and Fire Protection.

Recently representatives of the Railroad Association and the Forest Service discussed plans for effective fire protection along the rights-of-way of railroads in the National Forests. Added to this is the question of protection along all rights-of-way.

It is felt that the best results are to be obtained if the various agencies interested in protection against forest fires work in unison, and to this end the Forest Service has proposed two methods, either that the Forest Service act as a clearing house or that a committee be appointed by the States and the Forest Service. The first method seems preferable, as it avoids the cumbersomeness of a committee and is simpler and quicker.

The Trend in Timber Sales

The volume of timber business on the National Forests during the summer can now be gauged with accuracy. The District quarterly reports of timber cut and sold have all been received. In spite of the shortage of labor and the many restrictions on building operations, more timber was reported cut on the Forests than in the corresponding quarter of any previous year. The increase over the first quarter of the fiscal year 1918 was more than 20,000,000 feet and the increase in value $57,000. Expressed in percentages the cut for the quarter increased 11 per cent, the value of the cut increased 14 per cent, and the timber sale receipts increased 4½ per cent. The value of the reported cut exceeded the receipts by more than $25,000, which is not remarkable in view of the falling off of new sales with their heavy initial deposits. It would be wise, however, for each Supervisor to make sure that he has not contributed to this difference by failure to insist on payments when they are needed.

All Districts except District 5 contributed toward the increased cut, with District 7 showing the largest increase on a percentage basis, District 6 showing the largest increase in volume cut, and District 1 the largest increase in value of timber cut. District 7, with increases of 45 per cent in volume cut and of 40 per cent in value, is still wondering where the labor came from.

New sales fell off sharply in both amount and value, as was to be expected. This is probably due to an unwillingness on the part of operators to buy timber which requires expensive improvements for logging. There was, however, a distinct trend toward higher stumpage prices for the timber sold, which averaged $2.25 per M in commercial sales during the quarter as contrasted with $1.68 per M during the corresponding period of last year. One unexpected feature of the reports is that new sales at cost fell off sharply, showing a decrease of 15 per cent. The cut in sales at cost, however, showed a very slight increase, amounting to about 4 per cent. Apparently the farmers and settlers were cleaning up their old sales, but were too busy to take out new ones.

Forest Service Exhibit at the Southern California Fair

The Cleveland Forest supplies the following account of its exhibit maintained at the Southern California Fair at Riverside, from October 7 to 12:

Green painted lumber for the booth was on hand Monday morning at the Riverside Fair Grounds, as were also Maxfield, Fred Baird, and Beeks; and the square frame work of the booth was soon erected. Entrance way in the front was left for the public to come in, and the fine young pine trees which Searcy had shipped down from the San Jacintos were banked at the rear and clustered around the sides of the booth, making a unique and effective appearance.

A good assortment of cones, which Searcy also sent, added another highly decorative feature; indeed, people commenced asking if they could have some of the cones when we were through with them, almost before the Fair was really started. Another touch which served to bring out local color of life on a national forest was the floor covering of the exhibit--a thick carpet of pine needles, also from the San Jacintos. It was the Trabuco District Ranger who started the slogan, "Come in, Folks, and get your feet in the pine needles." Folks did this, too, and few failed to comment on the delightful pine tree odor and atmosphere of the place.

At each side of the entrance were counters bearing filled "Take One" boxes and piles of publicity literature and maps. Directly in the rear center of the booth was the large camp fire model showing proper and improper methods of building camp fires in the woods. To the right of that, in front of a typical pine grove, was a Forest Service iron Kiosk, tool box, filled with sample tools, canteens, etc. Next to this was set up the Godwin heliograph which many people examined and asked questions about.

A fine specimen of a mounted coyote caught in a trap, which we had in the exhibit, elicited as much comment and attention from the public as any one object.

There were also some beautifully colored transparencies and exhibits of cloth made of wood fiber, cases of pine seeds, forage plants, and samples of lumber showing color and grain, together with description and general information about each.

When one considers that there were so many things to see at the Fair, and the average person's time was limited, or, if his time wasn't limited, his perception and powers of observation were because of the constant demand on both, one is surprised to realize how many people really did enter the Forest Service booth and leave with at least some information about National Forests and their purpose.

Reimbursement for Forest Officers' Horses

Reimbursement for the loss of a horse killed while running loose in pasture can not be made to the owner, if a Forest officer, according to a decision of the Solicitor.

Some time ago Forest Ranger James N. Temple, of the Sioux Forest, submitted a claim of $65 for reimbursement for the loss of a horse kept by him for official use. The accident occurred through the efforts of the horse to get through an opening in the barbed wire fence at the ranger's headquarters. The animal became entangled and in struggling to free itself slowly sawed off the left hind leg at the hock joint, the result being death from loss of blood.

In making adverse decision on this claim the Solicitor holds that since the horse was not under contract of hire, nor in use at the time of the accident, reimbursement can not be made under the Act of March 4, 1913.

The Solicitor points out the difference between the hire of horses of private individuals and horses furnished by Forest officers. He says that a private individual having hired his horse to the Government for a certain period could n hire it to another party for the same period, while a Forest officer is merely required to furnish a horse for his personal transportation and when not needed by himself may rent it to other Forest officers for official use. There is no contract of hire until the horse is put to some official use. In other words, the Government only hires the horse when actually needed for the transportation of the officer furnishing it and the officer may hire to others when not needed by himself.

Such being the case it may be a good time for Forest officers to revive interest in the insurance of horses for the periods when not in actual use.

Cutting Wood for Fuel in Massachusetts

An increase in the supply of fuelwood is being attempted through the combined efforts of the forestry department of Massachusetts and the various towns. By the plan in force the local moth superintendent, who is both a town and State agent, puts a crew of men into private woodlands with permission of the owner. Payment to the men is made from the gypsy moth control fund. The wood is sold, the town and State reimbursed, and the rest goes to the owner.

The cutting is done in accordance with forestry policies as far as possible. The trees are cut into long lengths, then sawed directly into fuel lengths. A special sawing rig, devised by the forestry department, is used for this purpose. The ordinary portable cordwood saws are designed to take only four-foot lengths. At the present time the State Forester has nine of the special outfits in use.

Wood Fuel in Missouri

"Burn Wood and Win the War" is urged by a bulletin just issued by the Missouri Fuel Administration. Local comment leads the Smildyville Express to the following witticism: "We suspect we're doing our bit. We estimate that about 40 per cent of our last sack of tobacco was pine sawdust."

Acquisition Notes

Senator Peter Goelet Gerry, of Rhode Island, has been appointed a member of the National Forest Reservation Commission to fill the vacancy caused by the death of Senator J. H. Gallinger, of New Hampshire.

New Publications

"Forest Study in the Primary Grades," by Edith R. Mosher, is the title of a very creditable and pleasing publication just published and distributed by the Public Domain Commission of the State of Michigan. This publication was prepared by Miss Mosher while a member of the Forest Service.

War Brevities

From all accounts D. D. Bronson is finding himself very busy at the Naval Training Station at Great Lakes, Illinois, and the following brief note shows how he has gotten into the war game: "I got in the War just in time to get shot once--in the arm."

Washington Notes

Colonel Graves made a quick trip to Madison during the past week. He was preceded there by Assistant Forester Clapp.

The signing of the armistice was fittingly celebrated in Washington by a complete shut-down of the offices under Executive Order. The opening gun of the drive for the United War Work Campaign was fired by a parade in the afternoon participated in by military and naval representatives and some thoroughly disguised civilians. The attention of the crowd was divided between the paraders and the aerial stunts and antics of seven airplanes.

Society of American Foresters

Majors D. T. Mason and Barrington Moore will address the Washington Section of the Society of American Foresters at the opening meeting which will be held November 21.

Tentative plans provide for at least one open meeting throughout the winter months, to be held on the third Thursday of each month. Following custom, the meetings will be held at the homes of the various members. Arrangements for the meetings will be in the hands of an executive committee consisting of W. R. Mattoon, Chairman, J. W. Mitchell, Secretary-Treasurer, and Paul D. Kelleter.

Invitation is extended to members of the Society who may have occasion to come to Washington during the winter to attend these meetings. Information as to the place of meeting can readily be obtained from the officers or members of the Washington Section.

Announcement has been received of the death of Lieut. James F. Quisenberry, 319th Engineers, from pneumonia. Lieutenant Quisenberry was formerly transitman in Acquisition but was in private employ at the time he was admitted to the first officers' Training Camp at Fort Myer.

Harry P. Burden and J. L. Brownlee visited Kurtz Brothers, manufacturers of artillery wheels, at Bethlehem, Pa., last week. The trip was made at the request of the Ordnance Bureau to make observations regarding the methods of seasoning vehicle stock. Serious waste has occurred in the steam bending of rims and in kiln-drying of spokes and bent rims, and the Forest Service was called in to assist in the elimination of the waste as far as possible.

A. F. Hawes is now with the Fuel Administration. Since taking up his new duties Mr. Hawes has been so terribly busy that it has been impossible for us to get enough of his time to find out what he is doing. All we know is that he is to take care of the wood fuel end. It may be that he is busy sawing wood.

Old Forest Service publications are still coming in. The Sopris sent 878, Sierra 202, Sioux 103, Caribou 82, and Bighorn 6.

District 1

P. C. Kitchin has left for Madison, Wis. His family will follow at a later date.

With deep regret announcement is made of the death of Ray Maurer of the Office of Engineering, and of Eugene P. McGlaughlin, corporal, 5th Company, 20th Engineers, France. Mr. Maurer was at Coram, Montana, engaged in entry survey work when he fell a victim to influenza, which developed into pneumonia. Mr. McGlaughlin died at the army base hospital. He was Forest Assistant on the Deerlodge at the time he left the Service to enlist with the 20th Engineers.

The Priest River Experiment Station planted a large variety of exotic hardwoods during the period from 1911 to 1913. A final report has been recently prepared, from which the following notes are taken.

The following trees were able to grow on certain favorable sites within the white pine region provided they were given considerable care and protection--soft maple, white ash, red oak, American elm, black cherry, white birch, and an Asiatic species of elm (Ulmus pumila). All other species failed, largely because of frost. The list of failures includes, among others, several species of oak and hickory, basswood, walnut, yellow poplar, black locust, sycamore, hackberry, and beech.

Mr. Larsen advances the interesting theory that the reason some hardwoods are able to withstand frost is because

"These species are able to convert starch into sugars at about 6° F. above freezing and are thereby able to avert frost injury to stem and leaves ---------. By establishing the exact temperature under which this conversion occurs in different species a valuable guide would be at hand for determining their suitability for planting in other regions."

"A much greater variety of hardwoods" is Mr. Larsen's conclusion, "will succeed the yellow pine belt, or on the prairies, but only where artificial watering or some means of keeping the soil moisture high is available."

The main reasons for absence of native hardwoods in this region are insufficient summer rain, low summer temperature, and a short frostless season.

District 2

Two timber sale contracts, one for 800,000 board feet and the other for 3,000,000 board feet, have recently been made on the Minnesota National Forest. Dead and down Norway pine, live and dead jack pine and hardwoods, tamarack, and spruce were sold on competitive bids. The different species brought the following net prices: Norway pine, $7.55; jack pine, $6.10; hardwoods, $5.00; and jack pine bolts, 75 cents per cord. Material down to 6 inches will be used for saw timber, and from 6 to 4 inches for box board bolts. This is the first sale of green jack pine ever made by the Service in Minnesota.

Another gold star has been added to the Service Flag of the Rocky Mountain District. Lieut. Thomas V. Keefe died of pneumonia at Camp Zachary Taylor, Kentucky, on October 26. Keefe was formerly Deputy Supervisor of the Sopris National Forest, Colo., from which position he resigned a few months ago to enter the officers' reserve training camp.

Engineer Frank D. Corley of the Bureau of Public Roads died of the Spanish influenza contracted in the Durango-Silverton road project camp.

Capt. C. H. Granger, of the Forest Engineers, A. E. F., France, formerly Assistant District Forester in charge of Silviculture, was recently promoted to the rank of Major.

Public meetings will be held in the stock communities of Wyoming under the auspices of the extension department of the University of Wyoming. The Forest Service will be represented by Supervisor Ross Philips of the Big Horn Forest, who will give illustrated lectures on grazing within the National Forests. These meetings will be held early in December.

An energetic fuel campaign featured by Forest officers throughout the District has resulted in a marked increase in use of wood. There is an average increase of 50 per cent in the amount of material sold and given away under free use permits, according to reports from Supervisors. The Rio Grande reports an increase of 100 per cent. These results have been brought about by advertising, house to house canvassing, the designation of free-use areas, and a liberal interpretation of the fuel regulations so that where fire-wood is available on the National Forests almost any one could secure it for the asking.

Automobiles are rapidly becoming a factor in fuel transportation, and it is no uncommon sight in the Rockies to see motorists from the cities and towns of the plains with trailers attached to their machines gathering "pitch wood" for fuel from the Forest lands adjacent to mountain highways.

District 3

With deep regret announcement is made of the death of J. Rhode Matthews, Chief Clerk of the Carson Forest, after a brief illness with Spanish influenza.

The cooperative agreement for the construction of the Clifton-Springerville road has been approved by the Secretary. This project will require about five years for its completion, will cost about $545,000, and is the largest Federal Aid Road project in the District.

Prof. J. H. Allison of the School of Forestry, University of Minnesota, has been appointed Forest Examiner. Mr. Allison was employed in this District from 1906 to 1912 chiefly in connection with timber reconnaissance.

District 5

Telling a man that his house is on fire is the latest in successful fire detection by a Forest officer in California. Lookout Miller on the Bonanza King Lookout on the Shasta Forest discovered a house on fire in Trinity Center about seven miles away. He notified the Ranger headquarters by phone and Forest Guard Peterson rushed to the burning house two blocks away, routed out the owner and then got busy in helping him move out the furniture. The house burned down.

District 6

A fox farm on the Tongass started two years ago with 8 pairs of blue foxes and 2 pairs of black foxes now has more than 250 blue and 17 black foxes. The farm is located on one of the Sukoi Islands and is operated under a special-use permit for the purpose. The proprietor, Claude Green, has recently incorporated the farm under the name of the Hercules Fox Company. Fish are the chief article of diet for the foxes. Mr. Green has just built a fish house with a capacity for holding 16,000 dried fish. Feed houses have been placed at various points around the Island. About 40 fox farms are in operation in southeastern Alaska and the Aleutian Archipelago.

Deputy Supervisor Carl B. Neal has returned to Portland from Dee, where he superintended the burning of 20 acres of slashing on the Oregon Lumber Company's sale area. The Company furnished a crew of 6 men for this work. For fire prevention purposes this Company has felled all the snags on a strip 200 feet wide along the right-of-way for 1,500 feet through an old burn. The brush was cut and piled and will be burned next spring.

Just as the locomotive engineer for the Oregon Lumber Company sat down to dinner in his tent house at Dee one night recently, the house suddenly tipped, pouring the hot creamed potatoes directly into his trousers pockets and spreading the rest of the dinner generally over his person. Before he recovered himself, the floor tipped back to nearly its original position. Fortunately, neither the engineer nor his wife was severely hurt by this accident, which was caused by several trees being blown over close to the tent, the movement of their roots tipping the tent up and dropping it back. The same wind storm felled all the timber on a three-acre patch, leaving the trees ready for bucking.

Word has been received of the promotion of Shirley Buck to a Majority in the Quartermaster's Department. Major Buck is with a motor supply train in France, according to last accounts.

Forest Examiner A. A. Griffin is on detail to Madison Laboratory to assist in glue studies. With the sudden change in the situation it is not known how long he will stick.

Auto travel on the Crater Lake Fort Klamath road is over until next spring, according to Supervisor Rankin of the Crater, who reports 18 inches of snow on the summit.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

November 25, 1918.

TALKS FROM THE FORESTER'S OFFICE

NO. 3

THE FOREST SERVICE AND RECONSTRUCTION

A few weeks ago we were planning for further readjustment of our work in order to release as many more men as possible for war duties. Since then the war has been brought to an abrupt close. Further induction of men into the Army has been stopped and no more commissions for officers will be issued. The thoughts of the whole Nation are now directed to the readjustment to a peace basis. The process of reconstruction has begun. What does this mean to the Forest Service?

In meeting our responsibilities to furnish our quota of men to the Army and Navy, we have endeavored consistently to retain such an organization as would enable us to carry on such essential work as could not in the public interest be suspended; and we have also kept clearly in mind the need to be prepared for the resumption of our normal activities and for new duties and opportunities after the war.

The Forest Service has done its part in the war in supplying men to the combatant units, in its conspicuous participation in the forestry work in France, in its assistance to the Army and Navy through the investigative work in forest products. Of equal importance, however, has been the loyal service of those who have remained at their posts in spite of their personal wishes to enter the military service, and who have been responsible for continuing our regular service to the public, for maintaining our organization, and for the condition of preparedness for the responsibilities of reconstruction.

Our first problem will be in connection with the gradual resumption of our normal activities. Immediately all of our work becomes "essential." Our men in the military service will soon begin to return to us, and men now on special detail will again be available for their former lines of work. For this we must begin at once to plan. This will require the most careful analysis of our financial resources and of personnel.

But our basis of planning should not be merely to go back just where we were before. For we are in a sense living in a new world. Not only have conditions changed as regards international problems and industrial relations, but many fundamental conceptions of individual and public duty have been revolutionized. All those ideas back of our forestry enterprise have found their justification, and have been advanced to a point that would not have been reached for many years in normal peace times. We must have the vision to see our duties and our opportunities. It is a time for constructive leadership for which the Forest Service and its members are peculiarly qualified.

In resuming our former activities we have an opportunity to review critically what we are doing and how we are doing it. Inevitably in many of our activities there is likely to be some readjustment or reorganization as the men return from the military service and we again take up our work on a larger scale than during recent months. If we see defects in our organization and in our procedure we should not fail to recognize them, for now is the time for making any changes that may be necessary in preparation for the new era which I hope is ahead of us.

Improvements and Development

Every thoughtful Forest officer without doubt sees clearly many opportunities for improvement and development of the property in his charge, and ways in which the resources may contribute more effectively to the public welfare.

Every one recognizes the importance of developing transportation. The suggestion has already been made that we may be able to find a way to have roads constructed which will result in immediate increase in the value of timber and the construction of which would result in the establishment of a permanent industry. This proposal is now being studied to see whether a practical solution can be found. I mention it as illustrating merely one possibility of expansion in the direction of our transportation work.

In considering plans for progress in various Forest activities we should always keep clearly in mind the objectives toward which we are working. Of special importance is the great principle of permanence and stability in our forest work. A sustained production of raw materials means permanent industries and a basis for permanent community development. Well balanced coordination between different uses means full utilization and a maximum of service. Foresight as to possible uses is necessary to insure development later on of a resource not now required or at present inaccessible. We are seeking to develop and use the resources of the Forests and we should never forget that we are aiming also to bring about a condition of continued production of materials which will supply a stable demand. We are already well on the road in certain instances to accomplish this in our range management. In several Forests we have taken long steps in the direction of what amounts to a regulation of the yield of timber. We must give increasing thought to planning the timber development so that the forest communities which are built up will be on a permanent basis.

Looking Forward in Our Lands and Timber Policies

One of the first problems of expansion is that of the internal holdings within the National Forests. It is my desire to develop as rapidly as possible a program for the progressive settlement of the question of interior holdings. This means, of course, land exchanges and purchases. In some instances it would be wise policy to exchange stumpage for cut-over lands. As a general principle, the aim should be not only to extinguish interior holdings which are an embarrassment to administration, but also to bring under public control outside private areas which are most valuable for National Forest purposes. Mere exchanges do not always accomplish the purpose. They may consolidate holdings and make administration easier. An exchange sometimes involves passing to private ownership lands which really ought to remain permanently publicly owned. This is often necessary because of the importance of land consolidations. It is hoped, however, that ultimately a policy of exchange and acquisition may be worked out by which it will not be necessary to part title to any land surface whose retention in the public interest is desirable.

The adjustment of land questions and a rounding up of administrative units is essential in a program looking to permanence and stability. Plans of timber development based on the principle of a continuous service and a stable community are essential. To work out such plans may involve a permanent system of transportation. In some instances our present system of private contracts for timber may not be adequate to meet the real needs of the communities. We have a number of instances where communities are unable to secure an adequate supply of lumber without unreasonable prices, in spite of the fact that there are several mills in the vicinity. Oftentimes, under such circumstances, a single mill established on a permanent basis and run efficiently is ample for the needs of the community. It is probable that every District Forester could point to several situations where the best results from the standpoint of service and cost to the consumer would be obtained by having a sawmill owned and operated by the Forest Service. I am exceedingly desirous of seeing the Government undertake such enterprises where it can be shown that a system of private contracts would be a failure. Doubtless most of the instances are in less accessible localities where the proposition would be one of a portable sawmill. Certainly the Forest Service would be in a position to handle such a project, particularly after the return of the forest regiments from France, where many of our men have been engaged in exactly this sort of enterprise.

The Labor and Returned-Soldier Questions

The leadership of the Forest Service in bringing about a more stable condition of labor in the forest regions is very desirable. Let us keep in mind the principles of the sustained yield of timber and of forage in working toward this end. Far-sighted lumbermen are alive to the necessity of so improving the living conditions at their camps as to establish a basis for more permanent labor. The principles of community life must be worked out to meet the practical conditions of the forest industries. Forestry is the key to the problem. Liberal thinking by the industry, wise statesmanship by the Government and States, cooperation on the part of labor and the general public, will be required to solve the problems confronting employers and labor in the lumber industry.

Of immediate importance to the whole country is the absorption in industry and the professions of the soldiers as the Army is demobilized. The forest industries must do their part in this. We are cooperating with the various commissions and boards having this matter in charge, furnishing them information about the industries, qualifications for different jobs, in information about different kinds of work in mills and wood-working plants, and in the woods in public and private employ, about training for forestry, etc. It is my hope that there may be a correlated planning of all works, public and private, so that effective advantage of such work may be taken to provide opportunities of labor for men released from the Army or war work. The road building and other improvement work on the National Forests would fall under this category.

There has been a great deal of publicity in regard to plans for providing lands for the returning soldier. This question touches not only the public lands, but also idle logged-off lands. At present the work of providing opportunities for farmers on cut-over lands and on public lands is centralized in the Department of the Interior. We are of course lending such cooperation as we can. The logged-off land problem, however, is one in which the Forest Service is especially interested. A great many of the remaining logged-off lands of the country are only in part agricultural. Adoption of the principle of land classification is essential, and subsequent to that there is the problem of the right use of the nonagricultural lands which are interlocked with and adjacent to the farms.

A Larger Forest Policy for the United States

Many lessons in forestry have been taught by the war. Every incident relating to the use of wood has pointed to the need of a more vigorous and a broader forestry program throughout the country. Our National Forest policy stands out clearly and is excellent as far as it can reach. But how about the private Forests? The purposes of forestry in their relations to industry, to communities, and the whole nation can be secured only by consideration of all our forest resources. We have many centers of forest activity, but we have no national program of forestry. This is no new idea, and every effort to work out such a program encounters the same obstacles, namely, that we are unable to determine the extent of our resources, the local and national needs, or precisely the purpose, as related to individual regions, of an extensive forestry program. It does not suffice to tell lumbermen to save their young trees or to urge farmers to conserve their woodlots. Individual land owners respond, but the bulk of them and the general public will continue to remain inert, if not indifferent, until we show clearly the ends to be attained and why forests and good forest production are necessary for our industries, for local communities, and for general public benefits, in addition to the direct returns to the owners. I am therefore urging the necessity for a complete study of our forest resources as a basis for a program of forestry for the nation. There is already a demand for a census of standing timber. This was urged upon Congress in connection with the new census. What I am urging is not merely a census of standing timber, but rather an inventory of our forest resources, and in addition an economic study which will show the relation of the forests to the present and future needs of the localities and of the country at large. This would enable an interpretation of the problems confronting the lumber and wood-using industries and the needs of the different regions for forestry. It would enable us to build up a constructive national program showing what the nation must do, what the States must do, what private owners must do. It would be a very large undertaking requiring adequate funds. It would, however, be no more expensive than a mere census of standing timber as was proposed to Congress. The Director of the Census is in accord with us that the study should be made by the Forest Service.

Correlated with such a program would be a great extension of research work. It is my hope that the work at Madison may be greatly enlarged over its former peace-time basis. Our industrial and economic studies, under contemplation, would form a part of the larger study. Research in silviculture, in fire protection, water problems, and grazing, should also receive a great stimulus. I have in contemplation a more extended cooperation in research with State and local authorities. Whether or not I succeed in inaugurating the large enterprise above described, I wish to expand general research in forestry in a variety of directions.

H. S. GRAVES.

Grazing Fees Based on What the Grass is Worth

The Secretary of Agriculture has announced that suspension of the increase in grazing fees upon the National Forests will not be continued another year, and that beginning March 1, 1919, the charge for grazing permits will be from $.80 to $1.50 for yearlong grazing for cattle, according to the relative advantages of the different localities. The rates for sheep and goats on each Forest will be 25 per cent of the rate for cattle. The rate for horses will be 25 per cent more than for cattle, and the rate for swine 25 per cent less.

These are the rates to which it was announced in 1916 the charges would be gradually increased in three years. A modification of this plan was made in 1917, when the Secretary of Agriculture decided to make an increase that year of only 25 per cent instead of 33-1/3 per cent as had been contemplated. The reason for this was a showing made by the stockmen of serious losses from poisonous plants on some of the National Forest ranges which caused the Secretary to doubt whether the full increase contemplated should be made until these conditions had been remedied. At that time, however, he announced his approval of the policy of basing the grazing fee upon the real value of the forage and directed that a further study of the matter be made. This was done during the summer of 1917 and simply resulted in a confirmation of the conclusion reached the previous year, that the real value of grazing on the National Forests was double the price charged in 1916.

For the season of 1918, however, the Secretary deferred any further increase in grazing fees because the stockmen were facing many unusual difficulties brought about by the scarcity of forage following a severe winter and had to meet the war demands for increased production. Under these conditions it was deemed unwise to increase the burden of the stockmen in any way. Relief was given by th addition of about 1,000,000 head of cattle and sheep to the number originally provided with range upon the National Forests. This gave an increased return from grazing of $175,000, without any change in the rates charged.

We are now entering upon a new era. The situation which prevailed last year no longer exists. Readjustments on a peace time basis have already begun an we should now look forward to carrying out the plans made under normal conditions This means that the grazing fees for 1919 will be practically the same as they would have been had the increase been made in three installments. With the highe rates there will be an increase of about $750,000 in the receipts from grazing during the present fiscal year.

This will put grazing at the head of the list again as a revenue produce and under normal conditions it will hold first place in receipts for several year to come. The reason for this is simple. The forage resources are in demand and live stock can be walked to the feeding grounds and then walked back to the shipping point for marketing. We are selling at least 90 per cent of the annual forage crop. The timber resources are not in like demand and a very large proporti of our supply is so remote from transportation that it can not be marketed. Transportation must be taken to the timber instead of the product transporting itself as in the case of live stock. Ultimately, however, timber sales receipts will catch up with and pass grazing receipts for the simple reason that the annual growth of timber on the National Forests is of greater value than the annual growth of forage. This is already the case in Forests which have favorable transportation conditions.

The higher charge for grazing involves a greater obligation on our part to render efficient service and to see to it that the stockman gets a fair exchange in value of forage for the money paid. By just a little thought about improvements which could be made in management of the stock and the things which could be done that would be helpful to the stockmen we can more than make up for the difference in the charge and by an aggressive campaign against the things which are responsible for losses of live stock we can make the National Forest ranges more attractive than ever to the stockmen.

A. F. POTTER.

Five Year-Permits for Grazing

The Secretary of Agriculture has authorized the Forester to issue five-year grazing permits beginning with the season of 1919, which will not be subject to reduction except for violation of their terms or to prevent damage to the Forest. This is in the interest of stabilizing the live stock industry and encouraging the stockmen to improve the range and raise more and better stock. In announcing the approval of this plan it has been made clear that five-year permits will not be issued on any Forest for stock in excess of the number which can be provided for without danger of injury to the Forest or where for any reason the annual permits should be continued.

Particular attention is called to the fact that we may not be able to include the war emergency stock permitted on the Forests this year in the allowances under five-year permits, although it is possible that a large portion of it may be continued under temporary permits. This means that on Forests where there is doubt about whether the number of stock now grazed can be provided for permanently the issuance of five-year permits will be limited to such portion of the stock as we are sure can be grazed with safety, which probably in no such case should be more than 75 per cent of the number now allowed. In such cases application for five-year permits from Class "A" men should first be approved in full and the remainder of the allowance prorated among the Class "B" applicants on a sliding scale basis, which with the larger outfits would mean a division of their permits and renewal under annual permits for a portion of their stock. No one should be required to accept a five-year permit who prefers to continue under the annual permit system. The five-year permits will be issued to cover the grazing period allowed for a term of five years and will be renewed automatically upon payment of the fees each year. Cancellation or reduction in number for non-use of the range more than one year will apply the same as on annual permits.

The limitations or reductions of 10 per cent on permits of persons owning commensurate ranch property and 20 per cent on permits of others in renewal will continue on annual permits but no limitation will be fixed for the reductions on five-year permits until the expiration of the five-year period, at which time such reductions will be made in the renewal of permits for another five-year period as may be required to meet the demands of other applicants entitled to share in the grazing privileges.

The success of the five-year permit plan depends very largely upon the good judgment used in determining the extent to which this system may safely be applied on the different Forests and in avoiding the mistake of issuing these permits where they could not be continued permanently, as this would be injurious rather than beneficial to the stability of business of the permittees and the welfare of the community.

A. F. POTTER.

A New Pack Frame

Letters patent have been issued to Deputy Forest Supervisor John H. Clack, of the Selway Forest, for an improved pack frame. Mr. Clack has dedicated the invention to the use of the public.

The object of the invention is to provide a convenient and inexpensive device for carrying a load fastened to a man's back. The pack frame consists of vertical strips and cross pieces fastened together, the ends of the lower crosspiece being extended beyond the sides of the frame, and of shoulder straps each secured at one end to the side extensions and at the other end to the upper portion of the frame. Straps are also provided to fasten the load to the frame.

There is distinct need for pack frames in Districts 1 and 6 on a number of the Forests and as Mr. Clack has dedicated his invention to the use of the public, suggestion has been made that a supply be got on hand at the Supply Depot subject to requisition.

Passing the Buck

The following terse but expressive communication was recently received in Washington. It was addressed to the Oil Administrator, War Industries, and runs as follows:

"I got my oil from Perry. He send me to Oil Administrator. He refer me to Vegetable Fat Section. Fat Section refer me to Lubricating Oil Section. Lubricating Oil Section refer me to you. -------Who you refer me to?"

A Nigger in the Wood Pile

The wood fuel campaign of the past years seems at times to have suffered severely from ennui. Various experts have advanced different reasons. But these have not satisfied everybody. In view of the sudden termination of the war and the consequent removal of many instructions, it may not be out of place to call attention to an item that appeared in the Timber Trades Journal, London, as long ago as January, 1914. We don't know whether this information was generally known and so in a measure queered the wood fuel campaign, and perhaps spread the feeling that the wood fuel game is after all a German plot. Some of us who have tried cutting our own wood are almost inclined to believe that it is. The item referred to follows:

Kaiser Chops Wood for Health

The Berliner Tageblatt learns that the Kaiser, with the approval of his physicians, has been trying a manual-labor cure in the garden of the new Palace at Potsdam. His Majesty has worked with a gardener every morning, sawing wood and chopping it with an axe into suitable sizes for burning in stoves. A good quantity has been cut up each morning, which the Emperor has piled himself, the gardener getting the wood in payment for his help."

Bug Hunters Move West

It is a tradition among those Forest officers who have ever been in the Black Hills that the first query put to them by outsiders is "How are the bugs?" This does not refer to cooties or other pests not infrequently met with in traveling about, but to Pinus dendroctonus. For the benefit of the younger generation of foresters, it may be well to state that the pine bark beetle had a merry time in portions of the Black Hills region years ago. Much timber was attacked by the beetle and became a total loss because the timber could not be marketed promptly and there was a general prejudice against the bug-killed material through failure to restrict its use to certain construction used for which it was fitted.

Pinus dendroctonus ran its course in a few years, and it has been many a day since the Forest officers in the Black Hills have practiced bug hunting as a main activity.

It now appears that Forest officers in Washington and Oregon have been enlisted in bug hunting exercises by the District Forester. The purpose of hunting in this instance is not the same as the bug hunting in the Black Hills. The lady bug is effective in ridding grain fields of the aphids or lice which have been responsible for much loss of Oregon and Washington grain. So she is hunted not to be killed but to be encouraged.

It appears that lady bugs have the habit of congregating in enormous numbers at high altitudes during the month of August. The beetles remain in an inactive condition in these large colonies until late the following spring, clinging to vegetation of all kinds. Forest officers have been called on to furnish information of all colonies containing more than a half-million insects, or about 20 or 25 quarts in volume, in order that the Bureau of Entomology may be informed.

The lady bug is from 1/8 to 1/4 inch in length and has a red body with black spots.

Lignum Vitae

Lignum vitae wood is the best material known for the propeller shafts in steamships, and for some time the U. S. Navy Department has been using this wood in very large quantities. Recently the Navy advertised for 427,000 pounds of logs ranging in size from 3 inches up to 24 inches in diameter.

The dealers in genuine lignum vitae strained every nerve to procure the wood. Some of the importers even advanced large sums of money to producers in the tropics to bring stocks to ports of shipment in Cuba and Haiti, to insure prompt shipment and to fill the orders at once upon the receipt of the contract.

Much to the surprise of the regular dealers, they learned after considerable delay that a contract for 300,000 pounds covered by the schedule had been awarded to contractors in the Canal Zone, who agreed to supply the wood from the forests near Colon. Delivery was to be made at a relatively low price. Unfortunately, one important thing was overlooked. The wood they were ready to deliver is locally known as guayacan, which is the Spanish name for lignum vitae, whose Latin generic name is guaiacum, or true lignum vitae. The Panama wood called guayacan has no resemblance in structure to true lignum vitae, and can not be substituted for the genuine lignum vitae.

Considerable of the spurious wood is now reported to be on hand in New York and the pressing question for the dealers is how to dispose of it. The embarrassing situation might possibly have been avoided by the simple expedient of calling in the Forest Service in the first place.

Fourth Liberty Loan at Madison

Complete figures on the subscription to the Fourth Liberty Loan by member of the Laboratory have been received, and show that the members can buy as well a work. It is hoped to publish at an early date the complete returns on the subscription to the Fourth Liberty Loan from the individual Districts. The record a the Laboratory is as follows:

Total subscription	$42,250.00
Per capita subscription	105.60
Per subscriber	136.00
Average subscription of 97 women drawing average monthly salary of $87.15	61.00
Average subscription of 215 men drawing average monthly salary of $128.03	196.00
Percentage of force subscribing	78
" " all women "	82
" " " men "	76

Subscriptions to the previous loans were:

	Total	Per Capita
First Liberty Loan	$11,000	$127
Second " "	16,500	118
Third " "	25,150	109

Peace Notes

Condensed milk is needed abroad for the nourishment of the liberated nations and allies. It is officially reported that the need is extremely pressing. Shortage of feed and fodder throughout Europe has resulted in serious curtailment in dairy production abroad. To meet this demand, which will probably extend over a period of years, condensaries may now receive their normal requirements of sugar and new condensaries may be opened. Farmers are being called on to furnish the milk as required by the condensaries.

Anti-pneumonia vaccine is available for Forest officers, according to information from the Surgeon-General of the Army, and will be distributed in response to requests. Instructions for making requests have been sent to the Districts.

The War Industries Board has removed the restrictions previously placed on the purchase of telephone and barb wire. The Hun is tamed and we can now tame the cattle on the range, provided the improvement fund will stand the pressure.

Washington Notes

The United War Work Campaign fund was increased $871.50 by contributions from Forest Service employees in the Washington Office. The women contributed $469.50 and the men $402.00.

Elers Koch has started for Missoula, Montana, with a stop-over at the Madison Laboratory. Mr. Koch has been in Washington since early spring busy with administrative matters bearing on the war work at the Laboratory. We fear that the hurried departure from Washington is expressive of his feelings after contact with the Washington profiteer.

J. H. Foster is back in harness and has been assigned to special work with the Fuel Administration, in connection with wood fuel. Mr. Foster makes his start in Maine.

It is now Captain Deering, a promotion from Lieutenant. This involves no change in assignment. Captain Deering has been serving as Adjutant for some time.

R. S. Bryant left town for Chicago to attend the special meeting of lumbermen called for November 22 by the National Lumber Manufacturers Association. The lumbermen feel that they have some problems confronting them and are getting together in anticipation of the change in conditions.

Madison Laboratory

Personnel changes have been one of the additional activities at the Laboratory during the active war-work period. On January 1, 1918, there were 126 employees--107 men and 19 women. On November 1, 1918, there were 462 employees--298 men and 164 women. During September and October there were 276 personnel changes brought about by 107 resignations and 169 appointments.

On one occasion in a period of three days there were 55 changes. With the traffic going both ways it was a wise man who knew whether he was coming or going, much less trying to answer this for the other fellow.

A group picture of the 450 employees was recently made, following a mass meeting in the main Agricultural Building. Director Winslow addressed the multitude, which then adjourned to the lawn in front of the building to make permanent record of the impression made by the speaker.

Saving cargo space has been worked out successfully in several ways through experiments carried on by the boxing experts. Space was saved in many ways. Prior to the work of the Laboratory it required two boxes to pack properly the light Browning Machine Gun. The experts reduced the requirements to one box smaller than the larger of the original boxes in which the gun had been shipped to the Laboratory. This meant a saving of 28 per cent of space.

A new box 35 per cent smaller and holding two additional rifles was worked out for an overseas box for the 1917 Springfield Rifle. This meant a saving of 37 per cent of space worth $10.74. The new box is also cheaper to build.

District 1

Approximately 75,000 white pine and 158,000 yellow pine seedlings, all 1-2 stock were set out on an area of 270 acres on the St. Joe Forest. The crew of 35 men has been disbanded. Costs were brought up above normal by the unstableness of the labor. Several cases of influenza also occurred in the camp. The season was short, work being delayed for lack of rain and terminated prematurely by snow.

Steps have been taken toward the compilation of data on streamflow, storage possibilities, and other factors bearing on water power development. This is in anticipation of the probable increase in water power as soon as definite legislation on this subject is enacted.

District 2

Horses of poor grade running at large on some of the National Forests of the West have become a great nuisance. In most cases the animals are trespassing as well as consuming forage which is needed by cattle. When rounded up and marketed they pay little more than the shipping charges. A recent sale of 54 such horses netted an average price of $5 to $6 per head. The District is making every effort to do away with this menace.

The National Western Live Stock Show will be held at Denver, Colo., in January, 1919, and plans are already well under way. The Federal Railway Administration has agreed to furnish the necessary rolling stock and transportation.

Stockmen in southwestern Colorado are rapidly selling their breeding stock and concentrating on the raising of steers. This action is largely due to the following conditions:

1. The banks refuse to lend money on breeding stock. This action is in line with the present Federal Reserve Bank policy.

2. The fall market on breeding stock was very poor, steers with heavy carcass alone bringing top prices.

3. The present high market price of hay. The Government's demand for heavy steers for foreign shipment has also had an influence on the stockmen's actions.

District 5

A survey of available apiary sites on the Cleveland, Angeles, Santa Barbara, and Inyo Forests is being made by Dr. Philip and Mr. Demuth, of the Bureau of Entomology.

The Office of Grazing is doing its "bit" toward increasing the food supply. Assistant District Forester Rachford is investigating the grazing situation on the Tahoe and Eldorado Forests. Mr. Douthitt has just returned from a month's trip through the Modoc Forest made to note the effect of the increase in grazing for which provision was made. The final grazing working plan will soon be complete for the Warner Mountain Division of the Modoc, covering an area of 360,000 acres. This is the first finished intensive grazing reconnaissance work in the District.

Supervisor J. D. Coffman, of the California Forest, returns to duty December 1, having been discharged from the Officers' Training Camp at Camp Zachary Taylor, Louisville, Ky., on account of a slight physical defect.

Acorns from Quercus lobata for swine feed on the Santa Barbara are tentatively rated at ten cents per sack by Supervisor Hall. This price seems rather low considering the high price charged for "ham and," and so Mr. Hall is busy trying to find some volume tables covering the number of calories in the acorns.

A stockman on the Mono Forest was asked to contribute toward the Fourth Liberty Loan and refused. He was then advised that such refusal would doubtless affect his grazing preference in the future, whereupon he replied: "Put me down for the full amount." He now holds $1,000 in bonds of the Fourth Liberty Loan.

District 6

Forest Examiner E. J. Hanzlik, of the Olympic, has been granted a furlough from November 1, 1918, to March 31, 1919. He is to teach forestry to the invalided Canadian soldiers at the Soldiers' Civil Reestablishment Headquarters, Vancouver, B. C.

A correspondence course in dancing has been called to the attention of the members of the Forest Service by a former employee who has branched out into a field apparently heretofore not included in a forester's repertoire. The need for such instruction is not felt in the District Office. Proof of this assertion is found in the performance of the members of the District Office at the time of the recent Peace Celebration. Under the leadership of the District Forester the members of the office enthusiastically indulged in the serpentine parade to the great pleasure of the people of Portland.

Forest Examiner Wilcox goes to the Wallowa Forest where his work will be chiefly in connection with the sales of the Minam Lumber Company and the East Oregon Lumber Company. These sales aggregate 80 million feet of timber.

A plan for the protection of American Lake maneuver area and Camp Lewis cantonment from forest fires has been completed by Forest Examiner Plumb and transmitted to the officials in charge. Recommendation is also made that the officer in charge of forest fire protection be a technical forester to superintend cutting on the reservation and insure the improvement and perpetuation of the forests. All fuel wood needed in the camp can be secured from the tract, and a perpetual supply maintained if the forest is properly managed. Fifteen thousand cords of wood fuel were used during the past season. It is estimated that the 17,000 acres of woodland on the tract will grow 17,000 cords a year.

Spanish Flu serum was shot into the arms of thirty members of the Portland Office by a local physician as a preventive against the influenza.

District 7

The West Fork of Curtis Creek timber sale on the Pisgah National Forest has been approved by the Forester. This is the largest chance that has yet been advertised on any of the purchased Forests. The amount involved is about 9,000,000 feet of saw timber, 25,000 cords of chestnut acidwood, 5,000 cords of pulpwood, and 2,000 tons of chestnut oak and hemlock tanning bark. The saw timber is being advertised at stumpage values ranging from $8 for poplar, down to $1.50 for the several inferior species. The acidwood is being offered at $1.15 per cord. To exploit the timber, some 5 or 6 miles of flume or logging railroad will have to be built from the Southern Railway near the town of Old Fort, where there is a large tanning extract plant, up into the head of the West Fork of Curtis Creek.

This chance was first worked up some three years ago, but was not advertised at that time because the only applicant could not give the necessary proof of his financial ability to swing the deal. Since then the increasingly strong demand for chestnut acidwood throughout the southern mountains has reawakened interest and there are now five possible competitors.

In spite of the greatly increased cost of labor the stumpage value of the acidwood has risen from 30 cents per cord in 1916 to $1.15 at present. In addition to the 25,000 cords of chestnut fit for acidwood there are also some 5,000,000 feet of saw timber. The acidwood is the most attractive feature of the chance and as the purchaser will probably want to turn all of the chestnut into acidwood, the 5,000,000 feet of chestnut saw timber has not been advertised separately. All of the chestnut has been advertised as acidwood at an average price of $1.15 per cord, with the provision that any of this species taken out in the shape of logs will be scaled, not by the Scribner Decimal C rule but by the solid cubic foot rule, on the basis of 110 cubic feet measured by length and mid diameter outside the bark, as equivalent to one stacked cord of 160 feet and worth $1.15. This is one more step in the direction of adopting cubic feet as a unit of timber measurement.

Another interesting feature of this proposed sale is its direct value in connection with war industries. Because of the severe winter of 1917-18 and the scarcity of woods labor since then, the production of acidwood throughout the southern mountains has been heavily curtailed. All of the plants are threatened with a serious shortage in wood by the end of the coming winter. The War Industries Board has made a special request of District 7 to place upon the market all of the chestnut acidwood possible and it is in response to this request that special effort has been made by the District Officer and Supervisor to start advertisement on this West Fork of Curtis Creek chance.

The contract will allow a five-year cutting period from the date of the execution of the agreement. The question was raised whether it would be desirable to include in the contract a stumpage readjustment clause, as required by the regulations in our contracts for periods over five years and as ordinarily required in those contracts similar to this one. It was finally decided that such a clause would be unnecessary for the reason that whatever change in selling values or logging costs might develop during the life of this sale will tend toward a reduction rather than an increase in stumpage values.

It proved extremely difficult, on account of the unsteady condition of the lumber and labor market, to work out in this case an accurate and precise stumpage appraisal. It is hardly possible to make more than a rough guess at the average selling value and the average logging costs during the next five years. Although stumpage values are considerably higher than in the appraisal made three years ago, nevertheless it is believed that they allow a margin of profit in the operation more liberal than is ordinarily the case. A very liberal allowance of profit in such a case as this must be recognized, because the risk in an operation of this size during the next five years will be considerably greater than under ordinary peace conditions. If no higher prices are bid than the advertised prices, we can count on a total revenue from this sale of over $60,000. There are 4,000 acres within the sale area.

The Government bought this land, timber included, about five years ago at an average price of approximately $5 per acre.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

December 2[illegible], 1918.

Paris, November Eleventh

The following is taken from a letter received by a member of the Washington Office from Sergeant Herbert S. Ward, Q. M. C.:

"Everywhere the red and white and blue in bars and stripes and stars, and varied by the red and compound cross of Britain, the black of Belgium, and green of sunny Italy! But mostly were the striped tri-color and the stars and stripes in evidence. No truck and no procession lacked them, and many had no other.

Thus you can readily recognize to what an extent the deification of the American soldier was carried. Beginning at the eleventh hour, of the eleventh day, of the eleventh month in this Year of Grace, 1918, the women and the men of France bowed down before him. God grant that he may hold his head! The women threw their arms about his neck, called him a "petit loup-loup" (little wolf-wolf) or "le bon chien" (a good dog)--terms of extreme endearment in this land of strange constructions--kissed him and pressed his hands. A crowd of six or eight of les femmes de la France would sometimes raise him on their shoulders and carry him through the crowd, followed by a cheering, singing improvised procession, shouting out its greetings to another, led by some twenty-odd American soldiers dragging a German 77-field piece on which were piled all the French girls that could find lodgement there. When one fell off, it seemed that two piled on, and "tout le monde" gave way before this juggernaut of war.

The Concorde and the Rue Alexander III, which leads from the Champs Elysees to the Tomb of that great General and curse of France--Napoleon--were lined on either side with guns, and 'planes, and all the rude engines and impedimenta of the war, which the valiant barbarians of William the Last were unable to retain in their retreat. And here the people thronged, the fountains in the Place de la Concorde and the Tuileries played, and in the evening lights blazed out, where darkness had been rife for four long years. The beautiful gallery of the Opera House was a blaze of light, and in the Place and the Rue de l'Opera from ten to fifteen thousand of the "Monde" assembled, when on the balcony appeared an actress, in the costume of Alsace, and draped in the flag of France. A chord was struck and she began to sing "La Marseillaise." A chord was struck, for all the crowd joined in "La Marseillaise." Some wept, and others simply sang. The stirring words and still more stirring theme surpassed conception, and the volume rose and fell until all the world seemed thrilled with inspired promise of a human liberty, so oddly now re-realized.

At noon, the 12th, the gun salute of France was fired. The day before, the signing of the terms was told by salvos from the anti-aircraft guns, and minute guns were fired throughout the day. At the first gun M. Falguere smilingly remarked, as he had often done before, "C'est la Bertha!"

After that dinner, Blanche played the Star-Spangled Banner, La Marseillaise, La Barbanconne, and God Save the King. As I was leaving, Mme. F. asked if Blanche might embrace me on this occasion, and someway the father in my heart was gratfied for that childish hug and kiss. The colors which Blanche wore she made some days ago of all the Allied colors inter-tied, and carried it in her pocket until the hour when what we knew must come at last arrived and then she pinned it on

The American Cemetery at Suresnes was like a garden in the spring. On All Souls' Day the French had graced the tombs with flowers. Each vied with others, to the end that plants and cut bouquets bloomed everywhere. If any had been withered they were soon replaced and the small spot of ground where I had worked all summer and had left four weeks ago was all my dreams had hoped to make of it.

A little later in the day a German sous-marin, resplendent in the drapeau de la France, came slowly up the Seine and docked above the Pont Alexander III. There while an avion circled overhead and turned and banked and dove, a wonderful mechanical bird, with a human head--this most typical of all the engines of civilized hatred--boomed forth her French salute. By accident, and at about this time, across the bridge four or five troops of the French Cavalry came, and the ovation was renewed. Thus went the day. In the metro, back to camp, a French soldier, noting my uniform as he started to descend, refused to move until I had joined in three rousing hip-hip-hurrays. Weak as I was (my first time out of the hospital) I came across and didn't feel out of uniform at that.

I do not know that I have aught to add. You can not see this picture; you must live it. Another time I will write you how I went to Paris in the evening of the 11th. How I decided to go to Suresnes and get Mrs. Bland for a bodyguard; how I decided not to try to return to the hospital, and accepted Mrs. Pavey's invitation to occupy Firth's room that night; how I was awakened at about 3 A.M. by Firth coming in, also A. W. O. L. (absent without leave) and what a laugh we had at these two noble representatives of the Anglo-Saxon armed forces, both sergeants, and A. W. O. L. But I prefer to close this with a little scene on the Champs Elysees, where some dozen of the sedate and immaculate gendarmes of France were dancing Ring Around the Rosy with three American Red Cross girls in the center of the ring. The dance completed, they each kissed each girl on each cheek amid the general acclamations of the crowd.

It was typical of the day that the Commissaire du Police for the District of Paris stated that he had issued orders to arrest only the sober men on this occasion. That any man who didn't get drunk couldn't be trusted. Thus, perhaps, you can understand why I took part in some of these parades, particularly the one where the skeletal outline of the Kaiser, with the imperial helmet on his head and the whole dangling from a gallows tree, was the standard, flanked by the American and French flags.

Merger of the Tenth and Twentieth Engineers

The world's biggest regiment has come into being. The regiment was created by G. O. 47, Hq. S.O.S., which provides that:

> Engineer Forestry troops will be organized into one regiment of Engineers to be designated as the 20th Engineers, and 36 attached Engineer Service Companies. The 20th Engineers will consist of one regimental headquarters, 29 battalion headquarters, and 145 Engineer companies.

This means the passing of the 10th Engineers (Forestry). The 10th, 41st, 42nd, and 43rd Engineers, for example, become the 32nd Company, 20th Engineers.

The regimental organizations of the 503rd, 507th, 519th, 523rd, 531st, and 533rd Engineers are dissolved and the companies become Engineer Service Companies (Forestry). Company A, 503rd Engineers, for example, becomes the 1st Engineer Service Company (Forestry).

Regimental headquarters of the 20th Engineers includes one colonel, four lieutenant-colonels, two majors, four captains, and 82 enlisted men, among whom are enumerated 16 master engineers, four regimental sergeant-majors, four color sergeants, six sergeants and four corporals.

Christmas Boxes

The Christmas spirit was in full swing in the Atlantic Building during the past week. Two hundred and eighty-three Christmas boxes for members of the 20th Engineers in France were packed and sent off. The funds were supplied by the American Forestry Association from the Welfare Fund for the Forestry Regiments.

The important and interesting part of the work was done by the ladies of the Forest Service, who showed remarkable ingenuity in selecting the contents of the boxes and made all the necessary purchases. It can be said without betraying any state secret that each box is full of surprises.

After the last day set by the Post Office Department for accepting boxes, 151 labels were received, much to the regret of the ladies who had done the packing. It may be that something can be done. At any rate a big effort will be made so that these foresters will not be without Christmas greetings.

Road Work to be Resumed

"Cooperative highway construction under the Federal Aid Road Act must be resumed as quickly as possible in full measure." This statement was made by Secretary Houston at a conference of editors of agricultural journals recently held in Washington.

Approximately $75,000,000 will be available during the calendar year. This money comes from unexpended Federal appropriations, from State funds beyond what was necessary to meet Federal allotments, and from the amounts available during the current fiscal year.

The Secretary stated that to his mind the subject was of importance not only because of the necessity of good roads but also because of the desirability of furnishing worthy objects on which unemployed labor during the period of readjustment may be engaged. A great advantage in this connection is the existence of the necessary machinery in the Department of Agriculture and in the State highway commissions to do the work. This makes it possible to begin without delay.

The task will be one of selection, and those roads will be designated for improvement which are of the greatest economic importance, due regard being given to such military and other needs as are proper for consideration.

A Good Word for Forest Service Road Maintenance

Road maintenance of the Cochetopa Pass Road carried on by the Forest Service during the past season has been favorably commented on by A. W. Henderson, an official of the Colorado Division of the Pikes Peak Ocean to Ocean Highway Association, in a circular letter addressed to the County Commissioners of Colorado.

Mr. Henderson emphasizes the need of continuous maintenance and says:

"Proper maintenance of the roads need not require a great expenditure, need not call for an unnecessary amount of labor. In view of the scarcity of men for road work, most counties are turning to up-to-date road machinery as the solution of this problem. We made our return trip over the Rainbow Route for the purpose of gaining some idea as to what is being done on other east-and-west roads through the mountains. Going over Cochetopa Pass we could not help but be impressed with the good results which have been secured through proper maintenance. I made some inquiry about this road, and found that it was built under the provisions of the National Forest road appropriation act. The Supervisor of the Cochetopa National Forest advises me that this piece of road, 16½ miles long, was completed in 1914 and has been under maintenance since that date. The maintenance scheme is to keep a man and team at the Cochetopa Pass Road camp constantly throughout the season, which averages from April 1 to January 1 each year for automobile traffic. The annual maintenance approximates $900 to $1,000 per year, covering every item and figuring replacement of culverts and other such items. The maintenance is systematic in that it provides for dragging after each rain, regrading about twice each season, usually in the spring and again in the fall, and raking the rocks, surfacing, and other work as the need justifies. You will see that this averages about $60 per year per mile for maintenance."

Signs in the Forests

The use of tin signs has been strenuously advocated for some time and we have all been made to feel that cloth signs are generally taboo and are not to be used except for certain restricted purposes. Cardboard fire signs are used in some Districts for the annual slogan sign.

Yet in spite of all this it is not an uncommon sight to see many old cloth fire signs bearing the name of the former Secretary of Agriculture. Usually these signs are faded, torn, and illegible. The old tin fire signs with the black letters on a yellow background and the decided appearance of patent medicine advertisements are also in evidence. These signs were unsatisfactory from the beginning, both on account of their fading and their lack of contrast with the color of the tree bark.

The black and white "Prevent Forest Fires" signs in metal are probably the most satisfactory signs we have, but they are not generally used in some localities.

It is not a pleasing sight to see a miscellaneous assortment of torn and faded signs, signs shot full of holes, and signs that have been smeared with pitch through improper posting.

Sign posting is an important part of our work and should always be done in a careful and thoughtful manner. We must remember that it is one of the few activities of the Service with which the public is familiar. The results are visible and the manner of execution of other important work may be judged by the condition of our signs. Sign posting should be made one of our regular jobs, not something to be done any old time that is found convenient. Moreover it is of sufficient importance to be done by the experienced Forest officer. It is not a job to be assigned the new man merely for the purpose of giving him something to do. The work should be done systematically so as to avoid a hodge-podge resembling the interior of a street car or the bill boards along a railroad.

The question now is what can be done to "brighten up" the Forests. It has been suggested that as fire signs represent possibly 90 per cent of the signs on a Forest they should be in keeping with the neat road and trail signs that are coming more and more into use. It is felt that fire signs are most effective if changed repeatedly, and for that reason suggestion has been made that all ordinary fire signs be printed on cardboard and renewed annually or as soon as they show the effects of weather.

The plan of designating definite places for the posting of signs by the erection of special boards has been adopted in District 2. This plan seems to be a particularly good one for regular camping places, Forest entrances, and the forks of important roads and trails. Supplemental to the small slogan fire sign, a fairly large board set on posts (not trees) containing only a few words of caution is very effective.

Wood Fuel in Peace Time

What of the wood fuel campaign with peace in sight? Is it needed now that the emergency has apparently gone?

As an economic proposition it is, of course, well known that to the individual the use of wood for fuel hinges upon the supply of coal or of some other fuel of concentrated character. If there is enough coal, wood will not be used. The critical point is then the shortage of coal. Various statements have been issued on this point. The Fuel Administration has persistently held out the hope that there would be no shortage this winter, basing it upon the good record of production and distribution in the easy half of the season--the summer season. Within the last few weeks it has admitted an anthracite shortage and repeats the urgency of careful saving. Recently a statement has appeared that the shortage will reach 14,000,000 tons. It is noted that as winter approaches the outlook is not so hopeful. From now on it is going to be much more difficult to get out and transport coal.

With the present outlook it is safe to assume that there will be need for all the wood fuel that can be produced.

The discontinuance of the wood fuel items which have been issued at intervals during the past year should not be taken as a lessening of interest in the campaign or of need for it. These items have accomplished their purpose. A forester is now detailed to the Fuel Administration to take care of the wood fuel work and it will move forward from that office, where, as a fuel proposition, it more properly belongs. Over 5,000 copies of each of the last two numbers (Items 13 and 14) were distributed; additional copies can be made available if needed.

Remember that the rosy predictions of an adequate coal supply may not be fulfilled; and stick to the task of getting out wood fuel until a normal coal production and distribution are assured.

Told Around the Camp Fire

There are many interesting freaks in forest fires, and a favorite one for a camp fire tale is the persistence of fire in certain cases, sometimes in spite of weather conditions.

Forest Examiner B. E. Hoffman, of District 6, speaks of an occurrence on the Quinault District of the Olympic. A fir tree along a railroad right of way fell on October 1 after having been on fire since June 9, at which time it had been believed that the fire was extinguished.

The editor of Six-Twenty-Six, the monthly publication of District 6, relates his experience with a hemlock stub at Scenic, Wash. He reports that this stub burned incessantly for two months and that it continued to do so even after ten days of rain and a four-inch snowfall.

Supervisor Sloane, of the Shasta, in speaking of the McCloud Flat fire which occurred the latter part of May, reports that it was necessary to cut down on the first of September some snags within the fire line that were still burning briskly after three and a half months.

Game on the National Forests

A rapid development of the game policy for the National Forests seems possible if it is feasible to utilize the bear now on the Forests in the way the foresters of India claim to have done. A story comes from India that bears have been taught to gnaw bark and by that means girdle undesirable forest trees and give good trees a chance to grow.

The teaching came by accident. Foresters girdled the trees that were not wanted and the bears came to lick the sweet sap. The bears learned the kind of trees that afforded the delectable sap and took up the girdling on their own responsibility. Whether American bears possess similar intelligence and acumen would of course have a bearing on the success in this development of forestry.

The editor has been unable to ascertain whether the gentleman from India who is responsible for this story had been reading "A Dissertation on Roast Pig," written some years ago by a clerk in the India House, and containing somewhat similar reasoning to that of the bears.

Shall We Ride?

Responsive to a request from the Motor Transport Corps for an estimate of the number of motor vehicles the Forest Service could use, a report has been submitted which indicates that three hundred would about fill the bill at present.

The estimate covered trucks of different capacity, passenger automobiles, and motor cycles. It is estimated that there are about 100,000 motor vehicles in this country, which is more than the peace needs of the army.

Kyacks for Fire Tools

Ranger John W. Johnson of the Santa Fe has just completed a model of a standard fire tool kyack. This is a modification of the idea originating with former Ranger Warner of the Apache.

The kyacks are of pack-box type, of wood with a galvanized iron back made concave to fit the pack horse. Each kyack has a door at the front and top, and the pack end is perforated with openings to allow the handles of tools to project. Leather loops on the inside hold the tools in place against the inner wall farthest from the animal. Each pair of kyacks will hold a rake, hoe, shovel, and axe with space for food, horsefeed, and a small cooking outfit. The rigging is made of leather and is very substantial. It is attached across the top with two buckles and lashed down with one buckle, allowing the kyacks to be loaded and lashed in quick time. The kyacks when loaded weigh less than 100 pounds.

What to See in America

Mr. Clifton Johnson has in preparation a book on "What to See in America." Mr. Johnson has written many books and has traveled very extensively and is familiar with the more notable things. His present interest is particularly in the less widely known objects of interest.

Recently Mr. Johnson spent considerable time in examining the photograph collection in Washington and an effort will be made to furnish him information on features of interest in the National Forests. Forest officers can assist in this by sending in photographs and brief data. If the submitted material proves of value for Mr. Johnson's purpose, it may be desirable to get further details in some instances.

Housing Employees on the National Forests

Recent consideration of the housing problem on the National Forests shows that there exist 849 dwellings suitable for yearlong occupancy. Of this number 631 are actually occupied the entire year and 90 for but briefer periods during the active field season. There are 235 rangers living in rented houses and 154 rangers in houses owned by them.

In many instances the men who live in rented or personally owned houses reside on ranger stations during the active field season. Climatic conditions make it impracticable for the Forest officers to live at the stations the entire year. Of the dwellings suitable for yearlong occupancy, 379 are accessible to schools. Accessibility varies with conditions of roads and age of children.

It was also found that of the 849 yearlong dwellings 111 are in need of replacement and that there is actual need for the construction of 109 additional ranger stations.

The housing problem in Cape Colony, South Africa, is met by the construction of standard forester houses of brick and stone, containing four rooms and costing about 350 pounds (approximately $1,700), as against the $650 maximum with us. Salaries for these foresters range from 120 to 200 pounds per annum plus per diem subsistence ranging from 3 to 5 shillings.

New Per Diem Rates

The revision of per diem rates for Forest officers in travel status on official business cancels the double rate of $4 and $2.

Reimbursement for travel expenses will be in accordance with a scheme which provides a separate definite flat rate per diem for specific kinds of travel. The rate is determined by the class of travel contemplated. If uniform throughout the whole year, one authorization will suffice; if not uniform, each trip may be preceded by a special letter. The different classifications follow:

(1) Travel mainly in and between cities, or towns where the cost of living is commensurate with that of cities	$4.00
(2) Travel mainly in rural districts, involving stop-overs of less than a week in any one place	3.50
(3) Travel mainly in rural districts, involving stop-overs of more than a week in any one place	3.00
(4) Travel involving details at points away from the permanent headquarters of the traveler, such as temporary assignments to stations	2.50
(5) Travel by field parties (other than scouting parties)	2.40
(6) Travel by scouting parties	1.50
(7) Camping parties, pack trains, and the like	1.20

(The rates prescribed in (4), (5), (6), and (7) shall be increased to $3 during any period in excess of 24 hours in which travel by train or other common carrier is being performed).

Additional Purchases for Eastern Forests

The purchase of 54,744 acres for additions to the Eastern National Forests in the Southern Appalachians and White Mountains was approved by the National Forest Reservation Commission on November 29. The lands were purchased from 131 owners at an average price of $6.65 per acre. A total of 1,702,534 acres has now been approved for purchase on the seventeen areas.

With the removal of the hostile legislation in Georgia, purchases were resumed in that State. The present approval includes 39 tracts in Georgia, with an aggregate acreage of 38,108 acres at an average price of $7.22 per acre.

In Arkansas 7,269 acres were purchased at an average price of $3.61; in Alabama 5,159 acres at an average of $4.30; in North Carolina, 1,940 acres at an average of $7.97; in New Hampshire 904 acres at an average of $6.68; in Virginia 1,381 acres at an average of $4.36; and in West Virginia 40 acres at $7 per acre.

Pulp and Paper

A study is being undertaken of existing conditions and problems in the production and consumption of pulp and paper products. Sources of continuous information are being developed, and in a few cases the necessary arrangements have been completed. For example, a series of continuing charts is now being made and kept up to date from week to week that will cover conditions and trends extending back several years in such features as production, shipments, stocks, consumption, imports, exports, prices, etc., of pulp and paper.

Tentative information on the character, capacity, location, and adaptability of the individual wood pulp mills of the United States for producing pulps for cannon powder manufacture has been brought together, mapped, and turned over to the War Ordnance Department and to the War Industries Board. Three photographic plates have been prepared showing on maps the location of sulphite, sulphate, and soda pulp mills in the United States.

Arrangements were effected with the War Department for its Picatinney Arsenal to make nitration tests on four lots of wood pulp from the Forest Products Laboratory to determine their suitability for cannon powder when used without cotton. The tests are now under way.

Lumber Industry Investigations

Recently arrangements were perfected with two lumber trade associations to collect more detailed statistical data. The Southern Cypress Association now collects weekly statistics on production and the Northern Pine Manufacturers Association has begun the collection of monthly statistics of production by grades. Statistics on shipments and uses of cypress are also being compiled for public use for the first time by the sales organizations which handle the bulk of the cypress output.

A State Forest for South Carolina

In 1797 the State of South Carolina came into possession of about 1,000 acres of forest land. Joannes de la Howe by his will made provision for a local industrial school, which has since become a State institution, stipulating that 1,000 acres of a large tract containing 1,650 acres forever remain forest land.

Forestry Extension Specialist Mattoon has just completed an examination of this tract and reports much of interest. The forest presents a very good opportunity for a demonstration forest by the State. It is composed of shortleaf pine with oaks and hickory in mixture. Loblolly pine occurs on about 10 per cent of the land, and in low levels replaces the shortleaf. White, Spanish, post, black, and red oak and hickory make up the bulk of the hardwoods, which compose not more than 25 per cent of the merchantable timber.

Some of the original growth pine runs up to 126 feet in height and from 26 to 35 inches in diameter. The second growth pine ranges up to 90 feet in height and from 14 to 20 inches in diameter. The hardwoods contain a good many old trees, particularly Spanish and black oaks, but the majority are young to middle aged.

Red heart is present but not common, and the pines have a good average soundness. On the other hand the hardwoods appear considerably defective because of rot and crooked, limby timber.

The growth of the pine is rapid and satisfactory and reproduction is good.

Practically the entire forest is merchantable with good values. The principal products would be saw timber, pulpwood, hickory handle bolts, ties and fuelwood.

During the past there has been considerable timber wasted by the twenty-five tenants living on the agricultural areas occurring scattered throughout the holding and dividing the whole tract into a number of smaller acreages. Fires have been infrequent.

Suggestions for future management recommended a boundary survey and forest type work, a ten per cent cruise, and management to satisfy the local needs of the tenants. In doing this the forest can be used as a demonstration forest, because it is representative of conditions of the upper part of the State.

In addition to the value this tract has for the De la Howe Industrial School, it has an even greater value in that the forest really forms the nucleus for a State-wide forest policy. Not that a State forest administration should be organized merely for the sake of handling this tract of 1,000 acres, but a State Forester could use this area as a demonstration forest in the efforts to establish through the State an understanding of the purposes of forest management of forest tracts.

Surplus Traps on the Forests

An effort is being made by the Forester to get a line on all traps on the Forests that might be available for transfer to the Biological Survey. Detailed instructions to effect this have been sent out to the Districts.

Since trappers are no longer employed by the Forest Service and this work is now altogether within the province of the Biological Survey, it is felt that in many instances there are more traps than the local officers can find time to use in connection with their other duties.

Books for the Foresters

Fifty copies of "Exercises in Forest Mensuration," by Winkenwerder and Clark, have been purchased by the American Library Association for use by the officers and privates of the forestry regiments in France. A similar order has been placed by the Invalided Soldiers Commission at Vancouver, B. C., for use in the new schools for returned soldiers that will be established there.

Peace Notes

Approximately 6,000,000 feet of spruce, left over from aircraft manufacture in the Northwest, is in Government hands, according to a statement reported by the trade journals to have been made in Chicago by General Disque. This material is not to be thrown on the market at once but is to be made available for gradual absorption, so that trade conditions will be dislocated as little as possible.

Washington Notes

An atmosphere of peace and harmony prevails in Baptist Alley once more. The police drive against parking autos there, which caused Forest Service motorists to scatter and take to the tall timber, as it were, is over and an armistice arranged allowing a continuance of the parking privilege on a designated space and establishing some "closed areas." As might be expected, it took a grazing expert to fix the matter up with the police and show the chief just how the allotment (map furnished by Drafting) could be worked out without trespassing on the other fellow's range. Anyway, it's safe to venture around in the rear of the Atlantic Building again and leave your Tin Lizzie there if you don't make too loud a noise.

B. I. Shannon is back once more after a trip to Ogden via Madison and a visit at Denver on his homeward trip.

With deep regret announcement is made of the deaths of Ernest P. Johnson, Engineer in Airplane Timber Mechanics, October 22, and John P. Nickles, Laboratory Aid and Engineer in Timber Mechanics, October 25, both of the Madison Laboratory, and of Ranger Harley H. Sage, of the Coronado, and Ranger W. T. Brown, of the Inyo, November 4.

H. C. Hilton and J. W. Stokes are in Washington, but will shortly leave for the field on wood fuel work. Mr. Hilton goes to Minnesota and Mr. Stokes to Pennsylvania.

H. A. Smith has gone to Madison to get a line on the material available at the Laboratory for publication purposes and to work out methods of using it to the best possible advantage. Owing to the feverish activity that has prevailed at the Laboratory while all the important war work was under way, it has not been possible to take the time to prepare the data for publication.

G. A. Pearson is in town for an extended visit and will put in his time on a report covering the special subjects of study recently made by him.

District 1

A conference regarding the investigative work under way at the Savenac Nursery and the Priest River Experiment Station was held at Missoula in connection with the visit of Mr. Zon from the Washington Office. E. C. Rogers, and J.A. Larsen came to town for this purpose.

Bad weather and influenza have put an end to construction work on the Yaak Valley Road. Approximately 7 miles were completed at a cost of $30,000.

Factors controlling germination, survival, and growth of seedlings of white pine, yellow pine, Douglas fir, larch, hemlock, cedar, and white fir were made the subject of an intensive study at the Priest River Experiment Station begun in 1913. The final report, covering four years' work, has just been prepared.

Six seed plots were established as follows:
Northeast Slope (white pine type)
  1 plot in open and 1 under timber.
Southwest Slope (yellow pine type)
  1 plot in open and 1 under brush.
Flat (fir-larch type)
  1 plot in open and 1 under brush

Seed of the species mentioned above was sown in these beds, some of it on burned surface, and some on natural surface. The beds were protected by wire screen and data collected on soil moisture, temperature of air and soil, and other climatic factors. The response of the different species was recorded in detail. The results in general corroborate previous extensive observations as to the requirements of the different species for germination and growth.

The results for four important species, briefly, are as follows:

White Pine

Plenty of moisture is the essential factor in the germination of seed. Soil moisture and light are the important factors in growth and survival of seedlings. The required conditions for establishment and growth are mean seasonal soil temperature from 50 to 60° F., average minimum moisture not below 18% (of the dry weight) and at least 40% overhead light.

Yellow Pine

Moisture and heat are essential to germination. Survival and growth may be expected with certainty only on the warmer exposed flats and southerly aspects. Seedlings make decidedly better growth on burned and denuded surfaces than in the presence of vegetation. Successful establishment and growth require a mean seasonal soil temperature between 60 and 70° F. from May to September; from 75 to 100% light; and a mean soil moisture between 15 and 20%, although the minimum in August may drop as low as 3%.

Douglas Fir

Very similar to yellow pine in its demands except that it is more dependent on soil moisture and requires only about 45% light.

District 1 (Cont.)
Western Larch

Germination most successful on burned or denuded surfaces. Seedlings survive only with full overhead light and on sites with good or medium soil moisture conditions where the minimum does not fall below 5 or 6% during the driest part of the summer.

District 2

Annual grazing plans have been received from 18 Forests in the District. Six are in letter form and the remainder follow the usual outlines. In most of the reports there are slight changes in the numbers recommended for 1919. There has been a slight retrenchment on a few Forests where comparatively large war emergency allowances had been made. Our experience with excess emergency numbers on a number of the important Forests has shown that some of these emergencies may be made regular. The effect of the increase has therefore been to give us a better understanding of the real capacity of individual Forests. The District is following the plan of conservatism and in recommending increases is giving careful heed to the importance of the Forest from other standpoints, particularly game and silviculture.

Forest road work policies and procedure are to be discussed at Denver early in December by representatives of the Forest Service and of the Office of Public Roads. Questions of the type of road, methods of construction, amount and character of the preliminary work of reconnaissance location surveys and administrative examinations will probably also be ironed out. Mr. Norcross from the Washington Office is expected to be present.

To stimulate a better interest in improvements and sanitation at summer home sites, Supervisor Clark of the Leadville has recently inspired the formation of an association of permittees. The site is at present very untidy and in unsatisfactory condition and it has not been possible to secure the fullest compliance over the whole area. The association assumes responsibility for compliance with the regulations and conditions of the permits issued to the members of the association. The president, elected biennially, supervises the affairs of the colony and represents it in its dealings with the Forest Service.

District 3

A profound change is evident in the general attitude of Government employees at Albuquerque toward the National Federation of Federal Employees. The past year and a half of war, with all its revolution in thought and feeling, has apparently taught the employees that protection against injustice and the assurance of a broader vision and a fuller life for all men and women is to be found in organization and cooperation.

The local chapter of the National Federation recently held a meeting. Addresses were made by the organizer of the Federation, R. E. Peabody, and representatives from the various local Federal Bureaus. A committee has been appointed to see that the organization gets "over the top." The start has been sufficiently auspicious to indicate that a local organization will be successful.

Emphasis was laid on two main purposes of the Federation. They are to correct the social injustice of low pay in the entire Civil Service and to make the Civil Service a more efficient body of public servants.

District 4

About 1,200 acres of larkspur has been eradicated in this District during the past two years. The Forest Service to date has expended $5,089.82, and the stockmen have contributed $2,820, making the average cost per acre $6.59, exclusive of the time of Forest officers. This cost is about two-thirds of the previous annual loss in cattle.

Cattle men have constructed 47.73 miles of drift and division fences on the Fishlake Forest since 1913. The total cost is $9,404.60, and the work has been done without any assistance from the Forest Service.

N. J. Fetherolf has returned from his summer's work on the Cottonwood Nursery and will spend the winter in the District office. He reports six or eight inches of snow at the nursery when he left.

Logging Engineer Seerey returned from the Pacific Coast, where he made a study of logging and milling methods.

The signing of the Armistice made a sudden change in the plans of E. H. Hall of the District office and D. A. Arrivee of the Wasatch Forest, who were about to leave for war work at the Madison Laboratory.

The District office contributed $211 to the United War Work Campaign Fund. Of this amount $200 was from the War Gifts Association and $11 by personal subscription.

On November 11 the President by Executive Order eliminated from the Weiser Forest five small tracts comprising 1,278.11 acres. About 517 acres are privately owned. The Government land is of low Forest value. One tract of 25 acres has some slight agricultural value.

Subscriptions to the Fourth Liberty Loan in District 4 amounted to $35,600.

District 5

A sale has been made covering 82,500,000 feet of timber on the Shasta Spur Chance on the Shasta Forest. On Compartment I the timber brought the upset prices: yellow pine, $2.25; fir and cedar $.50 per thousand. On Compartment II the timber brought better prices, due probably to greater accessibility to more than one outfit. The yellow pine here brought $3.01, Douglas fir, $.75, and white and red fir $.50 per thousand.

The State Cattlemen's Association has been reorganized. It appears that the old association was not fully representative, as there were but seven directors and 150 members for the whole State. Under the reorganization there will be 25 directors to be chosen by the various county representatives. These county representatives will assemble in five zone meetings to be held the first week in December.

W. H. Graves, representing Secretary of the Interior Lane, was a recent visitor. Mr. Graves is gathering data on logged-off lands for use in connection with Secretary Lane's National land settlement policy for returning soldiers. A copy of Forest Examiner Berry's report covering logged-off lands of California was given to Mr. Graves.

District 6

A cooperative check cruise of the timber killed by smelter fumes near Galice on the Siskiyou is being made under a special agreement with the parties responsible for the damage. Settlement was refused on the basis of the original estimate made by the Forest Service. Forest Examiner Bruce Hoffman will represent the Forest Service. Logging Engineer Nelson will also be with the crew. The smelter company will be represented by Cruiser J. C. Cusick. Forest Examiner Haefner will act as compass man for both cruisers.

Inquiries for timber recently received by Silviculture seem to indicate a renewed activity in new lumber-producing enterprises.

The Portland office of the Forest Service contributed $427.50 to the United War Work Campaign just closed. Portland's quota for this drive was $450,00

Eagle Creek camp grounds, on the Oregon, have been put in condition for the winter. The picnic tables have been taken down and placed in a storehouse, and Ranger Wiesendanger has moved into Portland for the winter. During the season 17,457 visitors registered at the camp grounds. As only about one in five usually register, it is estimated that about 85,000 people visited the place. Every State in the Union was represented on the register; also eight Provinces of Canada; Mexico; and nine other foreign countries. The public cooperated well during the season in keeping its camp sites clean and in putting out camp fires before leaving. Sixteen parties were brought back by the ranger in charge to clean up their camp sites and put out the fires which they had left unextinguished.

Subscriptions to the Fourth Liberty Loan for this District reached a total of $33,450, of which the members of the District office subscribed $9,450 and the field offices $24,000. There are a total of 336 employees in the Distric and 283 are represented.

The differential, varying from six to thirteen cents per thousand, which the mills of the Willamette Valley have been paying in addition to the Coast rate on all shipments of lumber to points east of Missoula on the Northern Pacific, Great Northern, and Milwaukee railroads has been removed by the Interstate Commerce Commission, as the result of action taken by the Willamette Valley Lumbermen's Association.

This differential has been a handicap to the lumbermen of the Willamette Valley, who had to compete with the mills from the Columbia River, Portland, and Puget Sound districts, which paid only the Coast rate.

The Interstate Commerce Commission allowed the Department of Agriculture to intervene in this hearing. Assistant to the Solicitor Staley submitted a brief in the case. The decision is an important one from the standpoint of the Forest Service, as the marketing of 47½ billion feet of National Forest timber in the Willamette Valley district is affected by the reduction.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

December 9, 1918

TALKS FROM THE FORESTER'S OFFICE

No. 4

Concerning Research

The French Government has sent to this country a commission of distinguished scholars to establish a closer relationship between the two countries in education, science, literature, music, and art. The spirit of this movement was explained by the chairman of the commission, M. Reinach, in an address delivered last week at a banquet of the Carnegie Endowment for International Peace. The speaker emphasized the fact that achievement and progress depend both on knowledge and action. Either is ineffective without the other. He pointed to the two greatest figures of the war whose achievements were possible because they were able to apply profound knowledge to effective action. The first, a deep student, a writer, a lecturer, on military science - Marshal Foch. He was called upon to apply his theories at the most critical period of the war; in a few months the enemy was whipped and the war at an end. The second, a scholar and historian - President Wilson - who led this country to accomplishments that in many cases have exceeded our own highest expectations, and to whom all nations are now looking for leadership in action that will profoundly affect the future history of the whole world.

When we entered the war our country found itself unprepared. Many persons were during the years immediately preceding our entry in the war issuing warnings and criticisms and urging steps of preparedness. In most cases the measures urged were those of action, to increase our army, to manufacture munitions, to build ships, to introduce universal military service. It would have been well, if we could have heeded those warnings. But it took time to convince our country of the necessity for action. Moreover, much of what was proposed would have been very inadequate. For example, few persons thought of our army in terms greater than 250,000 men.

The failure to have a military force equipped and ready for the war was not in my opinion so serious as the fact that there had been previously no adequate planning, and that the war found us without a knowledge of how to do many things. Basic information was lacking regarding our industries and regarding certain of our raw materials; and the Government was often at a loss to know how to draw its specifications for materials and equipment. Action was hampered because there had not been adequate thought.

The Government early recognized the handicaps due to lack of scientific and industrial information. It organized to assemble available facts, and to conduct scientific research on a large scale. Experts in great numbers were called into service, under commission in the Army and Navy, attached to the War Department, to the War Industries Board, to the National Research Council, or to the various affiliated departments. Many laboratories were organized for war research, some of them newly established, some taken over from the civil departments, some brought into service by cooperation. Scientific men were in great demand. At one time an order was issued that prohibited any chemists to go overseas, for all were needed in the chemical service or for other chemical war work.

Our Government found itself facing a multitude of questions requiring investigation before specific action could be taken. In wood, these questions related to supplies of raw materials, species suited to certain uses, how to season and otherwise handle wood, the specifications for parts of aircraft, vehicles, boxes, the control of manufacture of material like plywood, and the inspection of wood and wood products. Within a few weeks after we entered the war every bit of information obtained by years of study at the Madison Laboratory and in our industrial studies was found of practical value and we were suddenly required to secure by new research a vast amount of information that did not exist anywhere. We could not have met our responsibilities if we had not had a background of research work extending over years.

Some of the investigative work required in the war was for specific war problems. Much of it is equally important for industrial purposes of peace. Scarcely any of the research work done by the Forest Service during the war will not have a great value industrially after resumption of normal conditions.

Blunders and incompetence due to lack of knowledge on which to act were glaring and conspicuous during the war because of the consequences of every mistake at such a time. During peace times blunders are often not noticed, for the loss may be to some private enterprise. It would, however, be a simple matter to point out how the traditions of rule-of-thumb, the prejudice against things scientific and against the expert, and the indifference of the public to the need of promoting research, have retarded progress in industry and the arts. Are we not now in a position to use the lessons of the war? Is it not time to substitute facts for hunches, and base action on knowledge rather than guesswork? All this is general, but it has its application in our own research problems. It has a wide application in practically all of our activities.

The war has dislocated our regular program of investigative work. Every effort has been diverted to the special problems of the war. In resuming old activities and in projecting plans for the future, I am studying the status of our work and the principles that underlie the whole structure of our research establishment. First of all, we must keep steadily in mind the objective of our research. In its simplest expression it is the acquiring of knowledge that is necessary to do our work. Too often it is thought of as something detached and as an interest of a select group of men of special training. Right in the Service we often find the same cleavage as exists elsewhere between the men who seek for information and those who must use it.

I think that there is a pretty general appreciation in the Forest Service of the need of research in practically every branch of work. Often it is not fully realized what this research means. Sometimes long periods of observation and experimmnt may be necessary to establish the facts that will govern very important action in a given type of forest or range. Not long ago a prominent officer in the Army expressed great impatience when his engineer spoke of the modulus of rupture and tensile strength of a certain type of laminated wing beam. He said in effect that he didn't care about modulus of rupture; he wanted to know how strong the beam was so he could have some specifications drawn. He wanted results, and at once. He did not realize that the strength of wood and wood products can be ascertained only by the most painstaking studies and experiments. Fortunately the Forest Service had conducted its studies far enough to give the results with a few additional tests. One alleged investigator (not in the Forest Service) made a small number of tests of cross-grain spruce and "proved" that it was as strong as straight-grained wood. Fortunately the aircraft authorities were skeptical and turned to us for the facts. A story is told of one lumberman who was confident of the adaptability of western yellow pine to wing beams of airplanes, after he had split a few boards and found them straight grained, and, by jumping up and down on a board supported at each end, found that it bore his weight. I could relate scores of similar stories showing the same failure to appreciate the value of basic knowledge and what is required to obtain that knowledge.

Forestry is still so young in this country that we have not the background of long observation and study that exists in Europe. Since the material we have to work with is different, we can only use European results as a guide. Yet we have had the task to begin the practice of forestry on a large scale. We could not defer forestry until research could be carried to a point of settling many questions of how to proceed. We simply had to begin silvicultural practice, range management, and fire protection, and our industries had to blunder along the best they could in the use of wood.

Under such circumstances we have undertaken two general classes of research (and I am using research in its broadest sense). The first comprises the basic studies upon which we hope to build the whole structure of our practice.

The second class includes the acquisition of tentative data, by shorter methods, that will guide us in the tasks we have immediately at hand. Let me illustrate. We are conducting at Madison some studies in kiln-drying to determine the adaptability of certain species to aircraft parts, and to determine how to handle and use the material. Even the work carried on during the past years has not reached a point to answer all the questions with finality. We made enough additional tests to enable us to indicate that certain species are adaptable, and to draw specifications that are on the safe side. But it will take another 10 months to make the results complete for even a limited number of species, and then there will remain similar experiments to settle the possibility of using and how to use other species. Again, in the matter of growth of trees, we have had to use tentative data based on short studies, to enable us to go forward immediately in the plan of management of our forests. We have used methods of reproduction cuttings based on short "investigations." A new problem may arise as to the effect of grazing on reproduction. We can't wait several years for the answer. We must take some action within a few months. A research man is given the task to give some answer within that time. The necessity for information to guide present action has thus forced us to make many studies that are in no sense fundamental, not designed as such, and fully recognized as tentative.

Here lies one cause of great confusion in regard to our research. The executive has often regarded this as fundamental research, is satisfied with the results, and sees no use of the longer, more searching studies that must be made as we can get to them. Many research men have taken these studies as typifying our idea of research, and criticized this work because it is not more thorough. One may make an ocular estimate of timber on a given tract to initiate a timber sale; it is not the final statement on which he signs a contract. I may pace off the boundaries of a tract for some immediate need; I don't call it a survey. I project a road by walking over it; it is not my location survey.

Let me draw some further distinctions. Set aside for the moment the investigations made by short methods to answer quickly and tentatively immediate questions, and consider the research work of permanent character. In my mind this falls into two classes. First, there are fundamental studies of the forest, of its natural composition, of the laws governing its life, and of the character of its product. We must have a basic knowledge of the material we are working with. I like the French methods of forestry because the French endeavor to adapt their silviculture to nature. If we are to do this we must know the natural laws governing the life of our forests.

To carry out this idea, research is necessary that has not so much in view answering some specific question in the realm of action, as to acquire a sum of fundamental knowledge on which to base the additional research needed to answer specific questions. This applies to forests, to the range, and to the products. To illustrate the problem in products, we must understand the composition of wood and the laws of moisture as they affect wood before we can make basic studies of seasoning wood.

For this fundamental research there are needed men of scientific training and experience. It is the most exacting kind of research. It is individual in character. The investigator must have an opportunity for painstaking observation and study. He must be given a free hand and relief as far as possible from routine executive work. Results will be expected when he has had an opportunity for his full study. If he is competent he will produce the results. If he is the right kind of man, the very absorbing interest in his work will cause all the pressure needed to make him produce results.

The second class of fundamental research is the application of basic knowledge of natural laws to the acquiring of facts regarding specific material and to answer specific practical questions. It is a search for measures and for an expression of quantities for use in developing, adjusting, and refining our practice, based on fundamental laws. We study the nature of a disease of a given species. We identify it, we learn how it acts under different conditions of moisture, the reaction upon it of the vigor of the tree, etc. Now apply this fundamental knowledge to our practical problems of forestry. How extensive is the damage? How fast is it destroying a given forest? How do our methods of cutting affect it? What can I do in practice to reduce it? And so on. Again, we learn the fundamental facts regarding the life of a certain type of forest. Now, how fast will the trees grow under the various feasible methods of management? What is the production in volume per acre? What natural reproduction can we count upon? And so on.

In short, we are now often forced to obtain tentative answers to our problems by using limited quantitative data obtained without the fundamental research. We seek as rapidly as possible to initiate the study of fundamental laws and then carry on quantitative research, if I may use the term, to replace by complete data the tentative information that is now guiding our action.

Of course these two classes of research are often conducted together. In certain instances they overlap, making it difficult to draw a sharp line. But the general distinction exists, and its recognition clarifies the conception of research problems.

Now in the second class of research there is involved oftentimes the necessity for a large number of experiments, tests, and measurements. To make these requires equipment, and an adequate force of helpers. Right here is where we get into the realm of organization, about which there is abundant discussion. A man engaged in a quantitative study must have experience as well as a background of sound scientific training. He is assisted by men of perhaps less experience. If the work is of considerable magnitude he may have groups or crews of helpers engaged chiefly on routine measurements. He has, in short, to supervise and direct their work. There is an "organization" and the principles of organization have to be used if he is to get the data he seeks. It is, of course, not comparable to shop work. Nevertheless, the assistants are told what to do, and the methods to be employed, and are held responsible for output. The difficulty has been that some men working as assistants have desired to work independently on fundamental problems of the first class above described, and have chafed under the restraints of organized work of the second class.

Our greatest handicap has been the difficulty to obtain men with scientific training and experience. Oftentimes it has been necessary to use men well qualified for fundamental research of the first class to direct quantitative work of the second class. Still further, we have endeavored to detach our research work from the regular administrative functions of the National Forests. The handling of the administrative problems connected with a force of men engaged in research are many, and it has been necessary to place administrative duties upon some men well qualified for independent research. My experience has been that a good many men who chafe under some routine duties have been reluctant to drop their directive work and apply themselves wholly to individual studies. The principles are clear and we can approach the desired end as fast as competent men can be found for the various special tasks. Meantime, I am aiming at a high standard. I must have the exceptional man for the individual class of fundamental research. I shall give him every facility and recognition. The younger man without the adequate training or without the peculiar qualities necessary to swing a given field of research alone, will be placed on special work under direction. When a man has proved himself, he can assume the greater responsibilities.

The foregoing discussion applies chiefly to research which falls within the field of natural science. We have also to carry on investigations which may properly be called industrial and economic research. The industrial studies have primarily to do with the technical phases of the manufacture and utilization of wood products. The study of the industrial methods aids us in forming our program of scientific research; it shows us how our results may be applied. Already our studies have resulted in the improvement of manufacture of certain materials. Forest Service specifications and methods of inspection are being increasingly adopted. Manufacturers are introducing Service methods of seasoning wood, etc. Much of the research is in the nature of systematic fact getting. Armed with the facts we are in a position to advance good practice by demonstration and by various means of education. Closely allied with the study of technical methods is economic research. Often the field work can be conducted at the same time. The question of supplies of raw materials, the requirements of manufactures, quantity of production, costs and prices, markets, transportation, finance, conditions of labor, public relations, tariffs, taxes, and so on, fall in the field of economic research. For the industrial studies we need men of technical training, some of them forest engineers, some industrial chemists, some engineers in forest products. For the economic research we must have forest economists. Such a class has not yet received recognition. We are, however, developing a number from the ranks of trained foresters who have the background of training in economics.

Some object to applying the term research to our industrial and economic studies. They assert that research is only the study of natural laws. But I am using the term in a broad sense, just as today it is used in historical research, municipal research, sociological research, etc. It is all systematic search for knowledge as a basis for human progress. It matters little what terms we use.

H. S. GRAVES.

Fire Wood for the Men in the Trenches

Half a cubic meter of wood to cook his food and keep him warm and in fighting trim was the allotment per man. The task of getting the wood was up to the Forestry Section of the A. E. F., according to the Stars and Stripes.

To keep this promise to the Q. M. C. meant the delivery of 1,100,000 cubic meters of fuelwood, or in a stack one meter high and one meter wide-enough to reach from Paris to Berlin.

Bronson Walks With A Gun

(Extract from letter from Bronson to a member of the Washington Office.)

"When I first came here we occupied and filled two barracks, holding about 60 men each, and now we only fill half a barracks. I had a wonderful day Thanksgiving; a fine dinner with friends in Evanston and a party in the evening. But unfortunately I set the alarm clock at six a. m. instead of 5 and was therefore 10 minutes late in "reporting on board" Friday morning and got a sentence at the Friday night "mast," cancelling my liberty for Friday p. m. and Sunday (today), and had to walk with a gun three hours Saturday afternoon. All of which has a tendency to make one more careful in the future to be on time."

Housing Lumberjacks and Forest Officers

All of us who are familiar with living conditions in the usual run of lumber camps have criticised (among ourselves) the lumber operators for not providing suitable living accommodations for their men. From observations during the past summer, I have reached the conclusion that we are not entirely consistent in making such criticisms, since they carry the implication that our conditions are so good in respect to housing of our employees that we are above reproach.

We rather pride ourselves on building neat little ranger stations, painting the buildings tastefully, and keeping the surroundings in clean and orderly shape. Our aim is not only to provide an outfit suitable for our needs and of which we can be proud, but also to set a good example to the local inhabitants which we hope they will follow. But the average ranger still must go to the creek for his bath or use a wash tub. The average lumberjack, however, can now go to the bath house and step under a shower. He can also sleep on a steel cot provided with a mattress. The ranger too can sleep in a real bed if he can afford to buy one. The Service does not furnish beds to rangers, and our present policy limits purchases of this character to cots and bedding which are intended for the use of visiting forest officers. Possibly most rangers are perfectly satisfied to furnish their own beds or at least have considered the furnishings of their stations as a matter of course. But what of our temporary employees, who as a class, now live like campers? There are altogether too many cases where a lookout, for example, is furnished a tent and mess equipment and led to the lookout point where the ranger will say: "Here's your mountain--you can make your camp here." If the lookout is in luck, he may be furnished with a stove that has probably long since been worn out in a ranger station or fire camp, but it is indeed seldom that a cot or mattress is furnished. Some of our temporary employees are good enough woodsmen to provide fairly satisfactory makeshifts in the way of beds and fire places, but at best sleeping on a pole bed with boughs, and cooking meals like an Indian for thre to four months are not conducive to efficient service and job contentment. And in this day and age, the Forest Service should not expect its temporary employees to live like tramps. If we can have them live as well as the average lumberjack, we shall be making progress. The fault is not wholly due to lack of sufficient funds. If all of us give more consideration than we have in the past to bettering living conditions of our employees, I am confident the results will be noticeable Many of us must change our point of view and forget about the standards of livin conditions in the early days of the Service.

A. O. WAHA.

Meeting of National Lumber Manufacturers' Association

Leaders in the lumber industry recently met in a mass convention at Chicago to confer on reconstruction problems. In attendance were representatives from every lumber manufacturing section of the country and other branches of the industry, embracing timber owners, sawmill operators, and wholesale and retail lumbermen.

Among the resolutions passed the following may prove of interest:

WHEREAS, The research work of the United States Forest products Laboratory at Madison, Wis., has proved of inestimable value in the emergency created by the war and of permanent value in opening varied avenues for the better industrial utilization of lumber and other forest products, be it

RESOLVED, That this convention recommends the services of the Laboratory to all branches of the lumber industry and further recommends that the Laboratory shall continue to receive adequate financial support from the Government to maintain the efficient organization that has been developed during the past year.

WHEREAS, A census of standing timber classified by species, quality, location and accessibility; a census of cut-over lands that will remain temporarily or permanently in forest would secure to the lumber industry information important in the conduct of its business; and

WHEREAS, Such a census would afford a basis for the interpretation of economic problems in forest and wood using industries; and

WHEREAS, Such census would greatly aid the development of a permanent National Forest policy, with respect to timber ownership, lumber export, tariff, local taxation, value of stumpage, and sundry forest problems;

THEREFORE, First--The National Lumber Manufacturers' Association heartily endorses the proposal that the Bureau of the Census with the Forest Service undertake such census;

Second--To this end the Association offers its facilities to the Bureau of the Census and the Forest Service;

Third--The Association urges Congress to make adequate appropriation to make such census complete and comprehensive.

President Signs Boundary Proclamations

On November 27 the President had a busy day with proclamations affecting changes in area of several National Forests. An elimination was made from the Custer Forest in Montana embracing 13,302.61 acres. More than 90 per cent of the eliminated land was already alienated and in private ownership. Of the area excluded about 1,000 acres are Government lands, over one-half of value for grazing and but 232 acres of some value for agriculture.

From the Deschutes Forest there were eliminated a tract about 7 miles square, embracing 46,020 acres, practically all of which is already privately owne The small amount of Government land is not of value for Forest purposes, and at the same time possesses but slight agricultural possibilities.

The area of the Ozark Forest was reduced by the exclusion of 17,562 acres, of which 14,335 acres are vacant public lands.

A tract containing 5,102 acres was excluded from the Battlement Forest in Colorado. Over one-half of the area is chiefly valuable for agriculture and without value for forest or watershed purposes.

A strip 5 miles long and one-half mile wide, comprising five small areas, aggregating 2,205 acres, was eliminated from the Sevier Forest. The lands were classified as mainly valuable for agriculture.

From the Blackfeet and Flathead Forests 107,000 acres are to be exchanged for heavily timbered unsurveyed school sections of the State of Montana.

The Coming Supervisors' Meeting in District 5

District 5 has scheduled a Forest Supervisors' meeting to be held at the University Farm, Davis, Cal., beginning January 27, 1919, and lasting for two weeks more or less.

Acting District Forester Headley states that an effort will be made to have the meeting serve three major purposes.

First of all, an opportunity will be given for the exchange of ideas, always the big thing at meetings of this kind. In the second place, intensive training will be given along definite lines for the duties of next year. The success that attended the intensive training given the arson squad last year proved the effectiveness of such training. And thirdly, each Supervisor will be expected to be in good trim at the close of the meeting to formulate plans for his Forest for the coming season.

To get down to cases and remove all tension, the program is going to be flexible. Papers will be barred. Speakers may and in fact should have guiding notes, but the speakers are to speak and not read.

Ashpans and Spark Arresters to be Inspected

Frequent and careful inspection of ashpans and spark arresters on locomotives operating on railroad systems under the control of the U. S. Railroad Administration has been ordered.

Results of this order will be watched with interest on the National Forests, for many fires have been caused by defective spark arresters and poorly working ashpans. The instructions require a thorough inspection at intervals of not more than seven days. In addition spark-arresting devices at the front end of locomotives must be inspected every time the front end door is opened for any purpose.

During periods of extensive drouth inspection must be made every twenty-four hours.

A record of condition on arrival must be made, together with a complete statement showing the extent of the repairs.

Special emphasis is laid in these instructions upon the necessity of putting nettings and spark arresters in perfectly tight and serviceable condition before the locomotive is put into service. Nettings and plates when worn thin or defective are to be replaced instead of being merely patched. Ashpans and hoppers must be tight, and dampers, slides, or apparatus for dumping cinders must be in good working order, closing tight.

The foregoing are indicated as being merely the minimum requirements. Local conditions or regulations are not affected.

More About the New Per Diem

Progress in providing reimbursement to Forest officers on travel status has been made, in the Districts at least, by turning back to the older scheme of actual expenses. In compliance with a request from the Acting District Forester at Missoula, authority has been granted to place all Forest officers of District 1 on an actual expenditure plan for reimbursement of expenses incurred while on travel status.

The per diem question has always been a source of confusion and dissatisfaction on account of the great variation in conditions and the inability to establish uniform per diem rates throughout the Service.

The hoped-for relief in the double rate of $4 and $2 did not come, mainly on account of the Comptroller's requirement of computation by six-hour periods.

The present scheme of flat rates for the different kinds of travel also presents difficulties. There is a wide diversity of opinion as to what constitutes a fair per diem, particularly as the District Foresters have authority to set the per diem at less than the maximum with any class. An anomalous condition arises where adjoining Forests which are in different Districts work under different rates. It is hard to justify this.

The per diem scheme was adopted because it was thought that preparation of expense accounts would be facilitated. However, the very opposite result was obtained, and it became a more arduous duty to prepare and get payment on a per diem expense account than it did in the good old days on an actual expense basis.

The exclusion of the majority of the field men--the ranger force--from the per diem scheme gave rise to considerable criticism, and adequate reasons for such action were difficult to give at all times.

Careful consideration leads to the conclusion that the disadvantages of the per diem system counterbalance its advantages, and accordingly the Forester has indicated it to be his intention to restore the actual expense plan for the whole Service, beginning July 1, 1919.

Return to this scheme prior to that date is left to the discretion of the District Foresters.

Quarantine Against Nursery Stock Importations

Quarantine regulations against the importation of foreign stock, seed, etc., have been promulgated by the Secretary of Agriculture, effective June 1, 1919. This action is based on exhaustive investigation made by the Federal Horticultural Board.

The quarantine means a stoppage of all importations of nursery stock packed in earth and practically ends the importation of evergreens.

As a war measure the importation of nursery stock had been stopped, so that the enforcement of the quarantine will not dislocate the business but continue a condition which has already been met by the importers.

There had been some opposition to this quarantine, particularly from Holland, but as that country has unusually strict quarantine laws against the importations of plants of all kinds there seems to be no particular reason for any change in the proposed laws.

Home production of stock is in no way interfered with and nurserymen in the United States will no doubt be able to produce all the stock necessary. Failure to do so up to the present time was due to the lower foreign prices with which American producers could not compete.

Washington Notes

With deep regret announcement is made of the death of Frank T. Fagan, formerly of the Office of the Solicitor and son of M. E. Fagan, Chief of Accounts of the Forest Service. Sergeant Fagan was stricken with pneumonia and died at the Edgewood Arsenal, Niagara, N. Y., where he was stationed as a member of the Chemical Warfare Service.

Lieut. Col. Coert DuBois was a recent caller at the Atlantic Building. Colonel DuBois will return to the Forest Service and resume his duties as District Forester at San Francisco on January 1, 1919.

Major D. T. Mason, at one time in charge of Silviculture at Missoula and more recently professor at the University of California, will return to his duties at Berkeley at an early date.

C. A. Lindstrom stopped off at Washington for one day en route to Chicago, where he will represent the Department of Agriculture at the annual meeting of the directors and secretaries of the American Association of Fairs and Exhibits.

Old Forest Service publications are still finding their way into Washington. Suggestion is made to field officers that the sending in of publications can be made an easy task by mailing them as they come to hand instead of waiting until a huge assortment is accumulated, necessitating shipping by express or freight. During the week the California Forest contributed 58 publications, the Harney 25, and the Siskiyou 32.

War Savings and Thrift Stamps to the amount of $52,333.60 have been purchased by the employees of the Department from the Disbursing Office. Of this amount Forest Service employees in the Washington Office have credit for purchasing to the amount of $6,304.38.

A Dodge truck now forms part of the equipment of the Forest Service in Washington, and, in keeping with the times, is available for all sorts of official use. Forest officers returning from field trips can assure themselves of good service in getting their trunks from the Union Station to their residences by depositing their claim checks in the Office of Maintenance. At times it will also be possible to use the truck where quick and special messenger service is now used.

Madison Laboratory

Subscriptions to the amount of $2,368.50 were made to the United War Work Fund campaign by 425 employees. This represents $5.59 per subscriber and $5.26 per capita on the basis of the total number of employees.

District 2

District Forester Smith Riley has returned to Denver from a trip which took him to Oregon, Washington, and Montana, where he was in conference with Forest and State officials on game conservation problems. He states that the chances for cooperation with these States are excellent, and that the officers whom he met are taking a very open attitude toward the game situation. Mr. Riley reports a very interesting trip made in the Hoh, Queets, Quinalt, and Clearwater rivers country of the Olympic National Forest, where a study was made of the possibility of allowing the killing of the surplus elk on the Forest under limited licenses. Elk in this region, it appears, winter in the dense forests, and instead of eating grass and forage plants live on ferns and brouse.

A mountain lion weighing 155 pounds and over seven feet long was recently tracked and killed by Ranger Frank Sobey of the Pike Forest.

A round-up of cattle on 250,000 acres of the South Platte River country, in the Pike Forest, which started on October 15, was completed November 30. Supervisor Shoemaker assisted by several rangers and ten riders tallied 2,200 head of stock. During the latter part of the round-up, severe cold and snow conditions were encountered, making riding very unpleasant and difficult. Stock on this part of the Pike had never been counted, and the work was done in the face of strong opposition from local cattlemen. It has since developed that the owners who most strongly objected to the round-up had a large number of cattle in excess of the amount for which they held permits.

Four surveyors completed the work on 93 entry surveys in Colorado and South Dakota Forests during the past season. These men are now in from the field working up their notes.

Forest Inspector Clinton G. Smith stopped in Denver en route from Albuquerque to Washington.

Subscriptions to the Fourth Liberty Loan in this District amounted to $33,900, made by 269 employees. War Savings Stamps to the amount of $22,545 have been purchased to date by 226 employees. The United War Work Fund campaign brought pledges for $266.95 from members of the District office.

District 3

In Arizona State Game Warden Willard plans to refer to the Forest Supervisors all applicants for trapping permits who are unknown to him, in an effort to protect the game against unscrupulous trappers.

Scaler Simon Strickland, of the Lincoln, recently spotted two wagons loaded with hay and other products, and suspected that the "other products" included the carcasses of several deer. Supervisor Arthur, Deputy Supervisor Anderson, and Sheriff Snyder kept up a two-day patrol of the High Rolls road and at last met the two wagons and their three occupants. One of the men stated that they had four licenses and four deer. On examination, there proved to be three whole carcasses and portions of three others--with all the heads missing. The case was successfully prosecuted and each of the defendants fined $50.

"The Science of Growing Yellow Pine Timber on the Colorado Plateau" is the subject of a paper to be read by Mr. Chapman before the New Mexico Association for the Advancement of Science at the annual meeting on December 26 and 27.

J. A. Barrett has been appointed official telegram censor and will thoroughly boil down all telegrams before sending. An effort is to be made to keep telegrams within the twenty-word minimum, which includes address and signature.

District 4

Beef cattle to the amount of 3,114,340 pounds were turned off the summer range in the Teton Forest, and the owners averaged slightly better than ten cents per pound live weight delivered at Jackson, Wyoming.

Report comes from the Teton Forest that forage on the areas reserved for elk winter range is excellent, and with approximately 1,100 tons of hay available and prospects of an average winter the elk should come through the winter in good shape.

District 5

The Forest officers on the Cleveland Forest are amused at the poor showing made by the Sequoia in wasting 20 hours and 15 minutes "to go and get" a careless camper. To save the reputation of the District, they modestly call attention to how Van Horn does it on the Cleveland:

"Date: November 13, 1918.
6:00 A.M. R. Garcia leaves camp fire on road between Oak Grove and Warner's.
8.15 A.M. Discovered by Guard Stone.
8:50 A.M. Reported to Ranger Van Horn.
9:27 A.M. Reported to Forest Supervisor.
9:27.01 A.M. Supervisor says "go get 'em."
9:27.05 A.M. Started.
11:00 A.M. Got 'em.
2:20 P.M. Van Horn arrives at Ramona with guilty party.
3:00 P.M. Found guilty. Fined 50 bucks. Case closed."

Timber sale contracts have been very well observed by operators, considering the inefficiency and scarcity of labor in this District this season, and all the other existing war difficulties. Hopes for a billion-foot sale have been aroused. At least there's a nibble. It comes from a well known and reputable company and involves the Kings River project on the Sierra. The company is going to put engineers into the field early in the spring.

Seventy-one Forest officers, including women and male Clerks, Rangers, Guards, Supervisors, Forest Examiners, and Assistant District Foresters, have enrolled in the Forest Service Club in the Emerson Course in Personal Efficiency. This study will give them an opportunity to revise and enlarge ideas about the bigness of the service it is possible to render in national forestry. Those enrolled will incidentally learn that efficiency does not mean "speeding up" and "punch the clock" methods, but fuller, richer lives and more of whatever good things the individual student is ambitious to acquire.

The Forest officers on the Trinity were rallied to the fire protection job last spring by Supervisor Huestis in a letter from which the following excerpt is taken:

"Our main job this summer is fire protection. We can't prevent lightning or all accidental fires, but I hope that it may be our privilege to so lead our community, public, and personal sentiment that man-caused fires will become extinct."

Did they do it? Judge for yourself. Their record of man-caused fires is:

	Number	Damage	F. F. F.
1917	115	$2,711.00	$7,621.00
1918	45	3,245.00	1,797.00

District 6

Game Culture was the subject of an informal address made by District Forester Riley at a meeting of the Portland Section, Society of American Foresters, held at the residence of M. L. Merritt, November 26.

The Forest Service Bowling League of the Portland Office was reorganized this week. The League is made up of four four-men teams. The team captains are Messrs. Dater, Root, Ireland, and King. Weekly sessions will be held Monday afternoons for a period of twelve weeks.

Investigative work was under consideration by the Research men of the District office during the one-day visit of Mr. Zon. Forest Examiner J. V. Hofmann, of Wind River Experiment Station, attended this conference.

District Forester Riley, who has been investigating game conditions in this District for some time past, visited the Olympic in company with Mr. Kavanagh. A trip was made into the Hoh River watershed and considerable information secured about the large band of elk inhabiting that region. Supervisor Fromme and Ranger Morgenroth joined the visitors in this trip.

Supervisor Bingham of the Malheur, Harpham of the Ochoco, and Macduff of the Siskiyou, are in the District Office for a month's detail each.

The new Post Office building in Portland is nearing completion and the Post Office officials have already moved in. The Forest Service suite is expected to be ready shortly after the 15th of December. Preparations for moving from the Beck Building to our new quarters are apparent on all sides. It has become the regular thing for some one with a tape-measure, notebook, and pencil to visit our rooms and carefully measure up the furniture. The actual work of tagging the various articles has already begun in some of the offices.

District 7

The Forester recently approved the annual turpentine budget for the Florida Forest for the season of 1919. This budget authorizes the advertisement of cuppage to the amount of 205,800 cups, of which 72,500 cups are to be placed on round timber and the balance on timber which has been worked already from three to six years, or, in the case of 56,000 cups, on the back faces of trees which have been worked six or seven years on their front faces and are now to be "back-cupped" after one or more years of rest.

Most of these sales involve three years of operation, but some are for only one or two years. This makes it necessary to reduce the cuppage in determining whether or not the plan of regulation for the Forest put in effect in 1913 is being followed. The plan calls for placing on the market 15 crops (150,000 cups) annually during the decade 1914-1923 under three-year leases. The cuppage for 1919 figured on this basis would amount to 16.77 crops, which is slightly in excess of the 15 crops called for by the plan of regulation, but the average for the six years is 14.77 crops, assuming that all timber advertised for 1919 will be sold.

It is thought that the western division of the Florida Forest is unique in having followed a definite scheme of regulation successfully for six seasons. The plan is to be revised in 1923, when, according to the original plan, the surplus of overmature timber will all have been placed under turpentine agreement.

WEEKLY BULLETIN

Forest Service - Washington Office

(Not for publication)

December 16, 1918.

More about Game on National Forests

Supervisor Grandjean, of the Boise National Forest, has the following to say about the game policy on the National Forests:

Colonel Graves' letter on "Our Big Game Policy" in the Weekly Bulletin for November 11 opens up a wide field for discussion and later for action. I have long felt that the Forest Service has not taken sufficient interest in the protection of the wild life. For this lack of interest I think the District office and the majority of the Supervisors are equally responsible. In other words, our whole policy has failed to give encouragement for aggressive positive action. The world over Forestry and Game Protection have gone hand in hand but we in this country have to a great extent failed to recognize the fact that the protection of our game rests largely on our Forest policy.

It is an undisputed fact that the game of the West has decreased enormously during the past decade. The causes that have contributed are several. In the East the main factors in game reduction have been largely, violation of existing game laws or a lack of sufficient intelligently framed laws. In the West these causes have been relatively unimportant.

The so-called "Great Snake River 'Desert'" was in the early days the main winter range for deer and antelope. In fact, great herds were to be seen there at all seasons. With the settlement of this region the deer and other big game were quickly pushed back into the foothills and were forced to winter on range with more or less heavy snowfall. Being unaccustomed to wintering on this type of range thousands of deer died annually for want of feed. Gradually they accustomed themselves to the new conditions, learned to establish themselves on the more open exposed slopes until a marked increase was noted for a few years. At about this time the National Forest ranges were thrown open to sheep grazing and on some Forests but few tracts remain where sheep do not graze. Consequently, the game range was again taken for domestic use and the result has been that deer, elk and antelope have, in many cases, entirely disappeared from their old range. I wonder if we are not treading on dangerous ground by stocking our Forests to the full capacity and to the complete utilization of the forage. In this connection, is it not possible that we have failed in our duty by opening our ranges to grazing to such a great extent rather than to encourage a more systematic and intelligent use of the home pastures?

While the close utilization of the game range has been very important in bringing about the alarming decrease in game in this region, I feel that there is another factor which has been at least equally destructive, namely, the destruction of game by predatory animals. Losses from this cause have been enormous on the winter range of the Boise, Payette, and the Middle, South and Main Forks of the Salmon River. The advent of the sheep to the forest ranges was followed as a natural consequence by coyotes. Each fall, large numbers of these remain on the Forest and depend on the wild game for their winter's food supply. This method of living has forced the coyote to take on new characteristics until now they resemble the timber wolf in many of their habits. The most noticeable is the method of killing deer. The system used is for one or more coyotes to run or worry a deer until it is easily killed. This is especially common during the winter when the snow crust is strong enough to hold up a coyote but lets the deer through, making travel slow. This method of killing both on snow and on bare ground has been noted many times and it no doubt also occurs during the summer. My belief in this was substantiated by Forest officers finding the remains of four elk calves, approximately 10 to 14 days old, undoubtedly the work of coyotes as the usual habit in killing sheep of tearing open and eating the stomach containing the mother's milk, was noted. Mountain lions, timber wolves, bobcats and eagles also destroy great numbers of game.

In order to control this loss, steps should be taken to utilize the labor of Forest rangers during the winter months in the destruction of predatory animals. I have followed this system for the last few years, with, I believe I may say, very satisfactory results, not only as concerns game protection but in protection to sheepmen as well.

One of the first considerations in our big game problem is the establishment of game sanctuaries. This requires a broad knowledge of game conditions, habits and requirements, as well as a high degree of judgment as to their necessity. The main point, viewed from the game production standpoint, is that the sanctuary include both summer and winter range. If the summer range is on the Forest and the winter range is off the Forest we should advise the State of this condition and have the necessary proportion of winter range included. It is absolutely worthless to establish a game refuge for breeding purposes unless we are assured of adequate protection during the winter season.

Under date of January 15, 1918, I was informed that there was then pending before Congress an act known as the Chamberlain-Hayden Bill, which was designed to enact into law the plan for Federal game sanctuaries or preserves, commonly known as the Hornaday plan. If I interpret this act correctly, it contemplates the setting aside of several or many small areas rather than fewer large ones. As a general thing this policy is faulty in that a small area does not give the desired protection while it is far harder to police.

The aggregate area of the 147 National Forests is 154,608,372 acres. Of this area, but 603,858 acres is set aside as National Game Preserves. Note, however, that 492,928 acres of this is located in the Grand Canyon, thus leaving only 110,930 acres on two other Forests. It seems to me that the time has come for the Forest Service to look toward a more positive policy on the game question and one of the first steps should be the establishment of Federal or State Preserves under Federal control. The preserves should, however, be located and withdrawn only after a careful and complete survey has been made of the game question for the whole region concerned. The main purpose of a sanctuary, as I see it, is to furnish a desirable place where conditions are such that the game will increase rapidly and by the overflow stock the surrounding country. To illustrate this point, I will refer to the Preserve on the Kaibab National Forest. As I understand it, the clo closed area includes practically all of the region suited, because of water and forage conditions, for game habitation. The number of deer on this preserve is estimated at from 25,000 to 30,000 head. They stay on the preserve yearlong and the conditions are such that there is no overflow from the preserve. No one derives any benefit from the game because of our protection. In such a case, should we not permit limited hunting for a short season, or, better still, could we not establish a system whereby the surplus would be killed each year by duly appointed government hunters, the meat, hide, etc., to be placed on the market, thus affording a considerable quantity of meat as well as an added source of revenue.

Another factor in setting aside game sanctuaries that will be all-important is the effect on the livestock industry. The tendency is to limit game preserves to such areas as are of little or no value for range for domestic stock. This is surely the wrong attitude. The first consideration should be the ultimate effect on the game and not on the stock. Areas not suited for cattle or sheep are for the same reasons unsuited for deer and elk. They may, however, be desirable for mountain sheep and mountain goats.

As stated before, the question of game protection and the closely related subject of recreational use of the Forests is a broad one. I would recommend very strongly that a complete survey of the game situation on each Forest be made by a small but highly competent group of men who are qualified, by their knowledge of game habits and requirements, and other pertinent factors, to formulate some definite policy of handling the big game question.

E. GRANDJEAN.

The Rain From Heaven

Forest officers returning from France have had considerable to say about "Sunny France" not having lived up to its reputation in regard to the weather. Stories of constant rains and muddy cornfields for camp sites have been told again and again, and from all accounts the men have had more or less wet times.

In a recent issue of the Stars and Stripes a more detailed account is give of wet weather, which differs materially from the previous accounts and yet seems to have been a very enjoyable time. This is what was said:

C Company of the old ________ Engineers, now the _______ Company of the newly made __________ Engineers, inhabits a stretch of the piney, sandy shores of France's Atlantic coast line. When it isn't engaged in making its sawmill quadruple its output of board feet per day, it likes to sneak off to the seashore and go in wading or in swimming in the altogether. Sometimes it rides to the coast in a jerky, puffy little train, sometimes it just plain hikes across country.

One Sunday not so long ago a small detachment beat it early for the coast. The rest were to follow later, after church, cleaning up, inspection, and a few other things. But before the remainder of C could set off, up from the salt marshes came a panting courier.

"C'mon -- quick -- all of ya!" gasped the scout.

"They's a Portuguese ship there that's been torpedoed and beached and blown to Hell, and they's nobody around who owns the stuff. All the Frenchies is goin' to it, so it must be all right. Get a move on. Right down through the short cut in the woods!"

"Whaddayamean stuff?" Queried one of the sceptical woodsmen of C.

"Whaddo I mean stuff?" retorted the courier, "you poor boob, what does a Portuguese ship usually carry? It's licker!"

So it turned out to be when C Company arrived at the seashore in mass formation, canteen cups in hand. There on the sandy stretch lay some 1,600 barrels of rare old Port, the kind that Lord Tennyson used to sip before sitting down to write "I'm to be Queen of the May"; of rare old Madeira, the kind that Thomas Jefferson proffered to his guests at Monticello; and -- tell it not in Tours, publish it not in the streets of A.P.O.706!-- much fine cognac.

There it was, with no owners' names attached -- just thrown up on C Company's doorstep, as it were, like a foundling child. And C Company, out of the goodness of its fatherly heart -- it has taken five Stars and Stripes orphans already and says it is going to put in for another after payday -- just cuddled those dear little waifs of kegs to its brawny bosom and swigged away with a right good will.

By noon of that Sabbath day the lumbermen had become so expert that they could tell by the sound when they kicked the barrel just what kind of nectar lay within. If it sounded bluff and hearty, it was good, old heart-warming Port. If it sounded a little less uproarious, it was the dulcet and sweet Madeira. If it sounded real sharp and wickedlike, they knew it was cognac and let it alone.

Along about eventide C Company called it a day and skipped back to its little O. D. home in the east, ready for the night shift to start cutting again. Mightily did the night shift labor, and when its work was over set out again for the seashore. In turn, mightily did the day shift saw wood for its ten-hour trick and set out for the seashore. In fact, the setting out and setting up process went on for a good two weeks, for 1,600 barrels is a long, long drink even for 250 woodsmen.

To C Company's credit, and also to allay the fears of the good people at home, be it said that they didn't overdo it. Their officers bear witness to that, and point with pride to the output record of both sawmill gang and logging groups during the two weeks of "The rain from Heaven," as the period will always be known in the Company's annals. But even now that it is all over, C Company's camp is no place to protest against unrestricted U-boat warfare.

New School of Forestry in Scotland

A school of forestry has been opened in Scotland in the Dundee District, according to a consular report just received in which the Consul gives the following account:

"The inauguration of the first school of practical forestry in Scotland recently took place at Birnam in Perthshire. The opening ceremonies were presided over by the Solicitor-General for Scotland in the absence of Mr. Robert Munro, Government Secretary for Scotland, and there was a good attendance of people representative of the arboricultural and forestry interests of the Kingdom.

The Solicitor-General in the course of his inaugural address said: 'Amid controversy and conflict of opinion in regard to forestry there were two aspects of it on which all agreed, the provision of technical instruction and the provision of openings for discharged service men. Birnam School combined these objects. It had always been the intention of the Board of Agriculture to set up a forestry school, but for various reasons it had never been done. Eventually it became clea that all the problems of reconstruction need not be postponed till peace was declared. An extensive policy of afforestation was foreshadowed, and side by side with all reconstruction problems was that of the discharged men. The Secretary for Scotland was indebted to Colonel Stirling of Keir and many others for suggestions as to how the instruction and the men could be brought together. The establishment of a school in Central Scotland was considered, but as it was an ambitiou programme, which would involve delay, it was thought better to form at Birnam a nucleus, which might become an accretion. The first step was to make sure of the men who would fill the school. In cooperation with the Ministry of Pensions and proprietors of Scottish woodlands, the men were placed on estates for employment and probation. The next thing was to erect the building in which they were gathered, and arrange with the proprietors for facilities for practical work. In that respect Colonel Fotheringham was a tower of strength to them. Not only did he place his unequalled woodlands at their disposal for practical instruction, but he presented the site of the school to the Board, and, what they valued more highly, had placed his time, sympathy, and knowledge at the disposal of the Board. The Duke of Atholl had offered his woodlands also, and they were gladly accepted.

"'These facilities had led the Board to erect the school in the most favorable situation in Scotland for technical training and demonstration, and it not only provided accommodation, but was an example in itself of what could be done in forestry, being entirely built of home-grown wood. At present in the school there were twelve students and a staff of instructors. The course would cover two years and they expected an entry of from 10 to 12 students each year. These numbers were few, but it must be recollected that so far the applicants had been few in number too. As they increased it would be possible, by increasing the staff, to double the possibilities of instruction. Thus the programme could be so arranged that other 20 to 30 men could be annually turned out fully equipped foresters. The students did practical work under the supervision of the factor and forester of Marthly, and the lecturer would explain the reasons for the different methods considered most suitable in forestry operations. School Board evening classes would provide instruction in bookkeeping, geometry, and mensuration to enable the students to understand the theory and practice of surveying and the use of the different field instruments. Lectures by experts would be given from time to time, the subjects chosen depending on the stage of instruction reached in the school lectures. Excursions would also be arranged to woods for demonstration purposes.

"'He wished to emphasize the fact that this school was only a beginning; later they hoped to be able to make the school a training ground for young men, who would proceed to the higher institutions at Edinburgh and Aberdeen. They hoped it would become equal to the Continental school of elementary instruction and that the great new Forests which would arise in Scotland would find employment for and in part owe their success to this humble beginning. For the present the venture was launched to meet in some degree the pressing needs of the moment.'"

Government Exhibitions at the Fairs of 1918

The combined Federal exhibits divided into six circuits traveled without mishap during the four months' season 23,400 miles, and exhibitions were made at thirty-four fairs in twenty-three states. Original plans had provided for participation in forty-one fairs and expositions, but on account of the prevalence of the influenza the engagements in five instances were canceled and in two cases the fairgrounds were required for other War Service. The exhibit filled eleven large freight cars and when installed covered approximately 50,000 square feet of floor space.

The exhibitions came as a result of the American Association of Fairs and Expositions securing the attention of the Secretaries of War, Navy, Interior, Agriculture, and Commerce, and the Directors of the Food Administration and the Committee of Public Information, whose interest led to the organization of a Joint Committee on Government Exhibits and the assembling of the display of the nation's war activities.

The fairs accepting the Government exhibits deposited sums with the Disbursing Officer of the Department of Agriculture to be used in paying the expenses of moving the exhibits and for some of the attendants. The expenses of each circuit are prorated among the fairs on that circuit.

Original estimates for freight charges were $34,700 and of this amount $16,000 will be refunded, due to the cooperation of the Railroad Administration. In consideration of the character and purpose of the exhibits free return was granted on all shipments and relief from demurrage charges given on all cars at stop-over points.

C. A. Lindstrom of the Forest Service was in charge of Circuit No. 3.

Forest Tree Nomenclature in the Field

Within the last few months three reports have been received from one district, in which the Check List common name for an important timber tree has been used for a different species in each report. One man used it correctly. The other two did not. It so happens that all three men hold degrees in forestry.

Careless use of species names is perhaps permissible in conversation with local residents, who use and understand only such terms; but, in an official report, such carelessness should be as completely taboo as any other deliberate actual untruth. What if such a report is used now or at some future time as evidence of the local occurrence of a species? Should not the official report of an M. F. be absolutely reliable at least upon one of the primary subjects of his profession? When official reports are unreliable even in their most simple and fundamental phase, the M. F. or B. S. F. clearly means nothing to the man, and, since it leads us to expect professional accuracy but fails to redeem that expectation, it is worth less than nothing to the Service.

The Forest Service Library

The library of the Forest Service was started in 1899, but contained very few books until the spring of 1902, when the main library of the Department of Agriculture transferred about 3,000 of its books to the then Division of Forestry. These books comprised the bulk of the forestry literature in the Department at that time, and included a set of Department publications and a few works on general and forest botany.

Today the Forest Service library contains 20,149 books and pamphlets and subscribes to 74 periodicals. These are received either through the main Department library or directly from the publishers. The main library now deposits in the Forest Service library all books on forestry which it procures, besides purchasing upon request books on other subjects.

Besides the publications of the Department of Agriculture, the Forest Service library contains a number of other Government publications, including the reports of the General Land Office, the last Census Reports, some of the publications of the Geological Survey, the Reclamation Service, the Bureau of Foreign and Domestic Commerce, etc. The books and periodicals on forestry and lumbering, however, form the main part of the library.

All books are catalogued and the articles in the periodicals indexed, by author and subject. The card catalogue at present comprises more than 100,000 cards.

A special feature of the work of the library is the compiling of bibliographies. This is done on the request of a member of the Service, or a correspondent, on some phase of forestry in which he may be interested. The library is always ready to compile such lists from its index cards and takes this opportunity to call the attention of the men in the field to this part of the library work. It has been suggested that the technical men on the National Forests might be glad to know that short bibliographies along their particular lines may be had upon request.

The current list of books and articles indexed in the library each month is printed regularly in American Forestry, which furnishes the Service with a small number of reprints for distribution. The members of the Service who receive this reprint outside of Washington include the District Foresters, the Directors of the Experiment Stations, and a few Forest Supervisors who have specially requested that they be placed on our mailing list. It is hoped that we may soon be able to procure a larger number of reprints, so that more of the field offices, especially the National Forest headquarters may be included in the mailing list.

This monthly list shows just what has been added to the library in the way of forestry literature, as well as what articles in periodicals have been indexed for the catalogue. Any of these books or periodicals may be borrowed by field men for temporary use, as may also the other books in this library and in the main library of the Department. The main library of the Department is a very complete scientific library, especially on agricultural subjects, and will gladly lend any of its books which are not in constant demand in Washington to members of the Department in the field.

Boy Scouts and War Work

The Boy Scouts of America take credit upon themselves for having reported approximately 20,758,660 board feet of black walnut which they had located, which amounts to 5,200 carloads.

Fire Conference in District 1

Plans have been completed by the District Forester at Missoula for the holding of a fire conference to be participated in by the Forest officers in the District who have the most to do with forest fire problems. The meeting will be held at Spokane during the second week in January, 1919.

Meeting of Arson Squad in District 5

The 51 per cent reduction in man-caused fires during the season of 1918, as against the previous year, was to a large extent due to the work of the Arson Squad.

In preparation for the 1918 campaign, a meeting of the Arson Squad was held before the opening of the fire season and plans discussed.

Arrangements are under way to have a similar preparedness meeting in the early spring, at which one representative from each Forest will be present.

Society of American Foresters

The Washington Section of the Society of American Foresters will hold its next open meeting on December 19. Colonel Graves is to speak on "An Inventory of Forest Resources" and Nelson C. Brown on "Forestry in Italy."

Memorial Trees

Plans for the planting of oak trees along the 440-mile stretch of the Jefferson Highway extending between New Orleans and Shreveport are under consideration by the Louisiana Conservation Commission and its forestry division. It is estimated that 118,000 oak trees will be set out along the highway.

French Forestry News

French matches are now even poorer than usual, because the French Government in a laudable desire for economy and conservation sold the timber of several condemned barracks to the match makers. Nobody remembered that about ten years ago the timber in these barracks had been thoroughly fireproofed.

Food and Farming Weekly

The weekly news service of the Department of Agriculture for newspapers and agricultural journals is to be continued by the Food and Farming Weekly, as successor to the War Work Weekly. The purpose of this weekly service is to cover the activities of the Department and its cooperating agencies in brief items of one hundred words or so.

Washington Notes

Colonel Graves made a quick trip to the New England Forests during the past week.

H. A. Smith has returned to Washington from a two weeks' visit at the Madison Laboratory.

E. N. Munns has returned to Washington after several months absence on war production work in the Southern Appalachians.

C. G. Smith is back in Washington from a field trip which took him into Districts 3 and 5, with short stops at the District Offices at Ogden and Denver.

District 1

J. W. Girard and U. S. Swartz cut enough larch and Douglas fir trees on the Cabinet, Kootenai and Pend Oreille Forests to make about 1,000 ties. The purpose of this work was to compile a tie table, which would show the number of each grade of tie that trees from 12 to 16 inches inclusive in diameter and ranging from 2 to 10 ties in height would produce. Two tables, one for sawn and one for hewn ties, have been completed. These tables greatly simplify tie appraisals because a weighted market value can be approximately determined, which will make a flat rate stumpage for all grades of ties feasible.

Payments to the amount of $35 per month on account of the death of her husband, a former fire-fighter employed on the Clearwater National Forest, has been allowed Mrs. Emma Tanner, residing at Loyd, Wisconsin, until her death or remarriage. In addition to this an award of $30 per month has been made to her for her three children, which will be paid until they die, marry, or reach the age of eighteen, or if incapable of supporting themselves upon reaching eighteen years, until they are able to do so.

District 2

With deep regret announcement is made of the death of R. E. Pratt, District Engineer, December 7; of Joseph M. Russell, of the Office of Maintenance, December 11, and of A. G. Lincoln, Hydroelectrical Engineer in Charge of Water Power, December 12. In each instance death was caused by pneumonia following an attack of influenza.

District 3

With deep regret announcement is made of the death of Forest Ranger A. W. Fletcher, of the Prescott Forest, on December 7, 1918.

A meeting of the Supervisors of the District will be held some time in February. No general Supervisors' meeting has been hold in District 3 since 1911 and the present time seems very appropriate for a meeting of this kind.

A giant Juniperus pachyphloea (alligator juniper) is reported by Ranger John H. Isbester, of the Ft. Bayard Nursery. The tree measures 212 inches or 17.7 feet in circumference at breast height, or 5.6 feet in diameter. The estimated height is 55 feet.

There is a legend on the Datil that the largest single log ever scaled on that Forest approximated 1,200 feet and was an alligator juniper. The purchaser ruined three wagons in trying to get the log to the mill and finally left it in the woods. At that time the purchaser was sawing juniper for pencil wood, for which purpose it was not suited, as determined later.

The sale of 55,000,000 feet of western yellow pine timber on the Coconino National Forest, known as the Clark's Valley Unit, has been awarded to the Flagstaff Lumber Company, at $2 per M feet. This timber lies south and west of Lake Mary and is the last large body of pine lying north of Mormon Lake. It will furnish the company a three-year cut, by which time they expect to be in position to develop the timber lying south of Mormon Lake. The Flagstaff Lumber Company is the only large concern on the Coconino which is operating exclusively on Government timber. At present the company is just completing two sales on the Anderson

Mesa above Lake Mary, with the possibility of still another sale, later on, which will complete the utilization of the timber on this mesa. There still remains a body of timber from the sale made in 1914, which will be reached and logged with the new sale of the Clark's Valley Unit.

Dr. W. H. Long, forest pathologist, has gone to Memphis, Tenn., to conduct studies of the heart rots of the more important structural timbers. Dr. Long is particularly interested in cypress a nd expects to spend most of his time in the swamps and woods near Memphis.

Ross McMillan, former Supervisor of the Jemez Forest, whose death was reported some time ago, was killed by being struck by a shell as he was standing just outside of the headquarters office. From a letter received it appears that they had been under fire all day but were paying little attention to the shells which were going over the house and striking from 50 to 100 meters distant. Ross McMillan was buried in the garden back of the house.

District 5

A reduction of 51 per cent over 1917 in the number of man-caused fires! Such is the 1918 record for the District, and it is one of which every man on every Forest may well be proud. Reasons for the achievement are many; the war, the work of the arson squad, depletion in the ranks of the confirmed forest burner by the draft, especially effective work with stockmen through their new State Association, publicity and propaganda (in which excellent assistance was rendered by the University of California, the Farm Advisors and the Weather Bureau), etc. The biggest reduction was achieved by the Sierra--81%, followed by the Santa Barbara and Eldorado with 70%, the California with 67%, and the Lassen with 66%; the Trinity and Klamath both secured a 61% reduction.

The Christmas tree trade has begun. Supervisor Morrow has an order for the first carload of the season to be shipped from Flea Valley to the San Francisco market. The price varies from 10¢ to 25¢ per tree, depending upon the size.

Four out of the six Forests securing the biggest percentage of reduction in the number of man-caused fires for 1918 were represented by delegates at last winter's Arson Squad Conference. Of the nine Forests represented at that conference, only three, or 33%, failed to reduce their man-caused fires by at least 50%. Of the eight Forests not represented, five, or 62%, failed to reduce their man-caused fires by 50%. This showing in itself is sufficient to warrant another meeting this coming spring. Be prepared!

Snow brush! Stockmen detest it; Forest officers look upon it (if the truth were told) with aversion; goats even won't eat it; and fire won't kill it. Useless, so we have always thought, but listen - "The tannin content (of snow brush leaves and twigs) you mention, is as great as we get from tan oak bark. If it would be possible to procure a carload of this chaparral, I will have it made into an extract and then have one or two tanneries use it."

It is reported that northern California anticipates a busy season.

An automobile load of deer meat approximating 350 pounds was recently found by Ranger Frank A. Robinson, of the Stanislaus Forest, at the home of William Porath of Merced Falls. Porath got a $25 fine and the inmates of the Mariposa County Hospital got a supply of meat for their Sunday dinner. Of interest in this connection is the refusal of Judge Endean to issue a search warrant.

District 6

With deep regret announcement is made of the death of J. Roy Harvey, National Forest Examiner in Charge of Land Classification, on December 5, 1918, following an operation.

Forest Examiner Bruce Hoffman has returned from the Santiam, where he made an examination of fire-killed timber for which an application for purchase has been made. The timber is located on the north fork of the Santiam.

Grazing Examiner J. C. Kuhns has been transferred from the Deschutes to the Wenaha as Supervisor to fill the vacancy caused by the regisnation of L. E. McDaniels who left the Service November 1 to enter the stock business.

The annual meeting of the Washington Wool Growers' Association and the Washington Forest Users Association will be held at Yakima, December 19-21. Assistant District Forester Kavanagh will give an informal talk on Forest Service cooperation with stockmen's associations, and Grazing Examiner Peterson will speak on poisonous plants and the plan for range management on a typical sheep allotment. Mr. Peterson is preparing a relief map and a set of mounted specimens of poisonous plants to illustrate his talks.

A District Ranger contributes the following:

"I consider that convenient camping sites properly improved are about as important in fire protection as lookout stations, and they are much more easily improved than fighting a forest fire. For this reason alone I would recommend that all convenient camp sites that are likely to be used by a large number of people be improved so they will have a good appearance, and be as convenient and inviting as possible. To do this it will, of course take considerable time and money.

I also find that travelers are much more liable to stop at a camp site where there is a good place to build a fire and where there is a rude table and seats of some description. At most all of the sites, material for these improvements except a small amount of cement, can be obtained on the ground, and all it needs is a little construction work. Tables and seats properly constructed out of poles or logs are generally considered just as good by the camper as those constructed from lumber. Fire holes should be constructed of rock and cement to make them satisfactory and permanent."

District 7

Under cooperative agreement between the Board of Road Commissioners of Natural Bridge district, the Forest Service, and a number of citizens of the immediate vicinity, the road from Greenlee, Va., to the center of Arnold's Valley, in the Natural Bridge Forest will be relocated, graded, and surfaced. The road is about 2½ miles long.

The Road Commissioners contributed $600, and in addition will allow the use of their road machinery without charge; the local citizens contributed $197, and will contribute in addition labor to the amount of $636.50. The Forest Service has made an allotment of $1,350 for the project, and the total amount available is $2,783.50, exclusive of the value represented in getting the free use of the road machinery.

Approximately 1,000,000 board feet of timber, mostly from National Forest lands, are hauled over this road annually. The road work is done under the joint supervision of the Road Commissioners and the Forest Service. R. C. Huey is the Forest Service representative on this project.